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PRELIMINARY ENVIRONMENTAL ANALYSIS



SAN JOSE BASEBALL STADIUM

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

MAY 12 1992

UNIVERSITY OF CALIFORNIA

PREPARED FOR THE

CITY OF SAN JOSE

NOVEMBER 1991



SAN JOSE BASEBALL STADIUM PRELIMINARY ENVIRONMENTAL ANALYSIS

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2000-2001

2000-2001 LIBRARY BUDGET REQUEST

The University of Toronto Library budget request for 2000-2001 is \$1,000,000. This amount includes \$200,000 for the purchase of new books and periodicals, \$200,000 for the purchase of electronic resources, \$200,000 for the purchase of microforms, \$200,000 for the purchase of serials subscriptions, \$100,000 for the purchase of monographs, and \$100,000 for the purchase of electronic resources.

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STATEMENT OF LIMITATIONS

This Preliminary Environmental Analysis for the proposed San Jose Baseball Stadium has been prepared on behalf of the City of San Jose by David J. Powers and Associates, Inc. The statements and conclusions contained in this report are based on preliminary conceptual project design. By the nature of this report, as opposed to the more detailed Environmental Impact Reports prepared under the California Environmental Quality Act (CEQA), numerous assumptions regarding various aspects of the project have been made. In addition, much of the information contained in this document is based upon available information. Due to the time constraints, limited site surveys and new analyses were conducted.

The magnitude of environmental impacts resulting from this project may ultimately vary from that described within this report. More specific conclusions regarding environmental impacts and mitigation will be able to be made when additional studies are completed and a detailed project plan is developed.

and the *lungs* were *normal*.
The *liver* was *normal*.
The *kidneys* were *normal*.
The *bladder* was *normal*.
The *uterus* was *normal*.
The *ovaries* were *normal*.
The *testes* were *normal*.
The *prostate* was *normal*.
The *rectum* was *normal*.
The *colon* was *normal*.
The *stomach* was *normal*.
The *intestines* were *normal*.
The *pancreas* was *normal*.
The *spleen* was *normal*.
The *thyroid* was *normal*.
The *adrenals* were *normal*.
The *pituitary* was *normal*.
The *thyroid* was *normal*.
The *adrenals* were *normal*.
The *pituitary* was *normal*.

SECTION I

INTRODUCTION

This Preliminary Environmental Analysis for the proposed San Jose Baseball Stadium Project is prepared on behalf of the City of San Jose. The purpose of this Preliminary Environmental Analysis is to provide the City of San Jose and the general public with information about the environmental issues pertaining to the proposed baseball stadium. This information, in conjunction with other studies being prepared on non-environmental issues, will allow the City of San Jose and voters to make an informed decision on a possible stadium ballot measure.

This Preliminary Environmental Analysis generally addresses the environmental impacts associated with the development of a baseball stadium on a portion of a 195 acre site roughly bounded by State Route 237 to the north, Zanker Road to the west, Coyote Creek to the east, and Center Road to the south. Although the stadium would likely be constructed on the central 130 acres of the 195 acre study area, this analysis contains a worst case evaluation of the potential site constraints on the entire 195 acre site, including impacts to the Coyote Creek corridor.

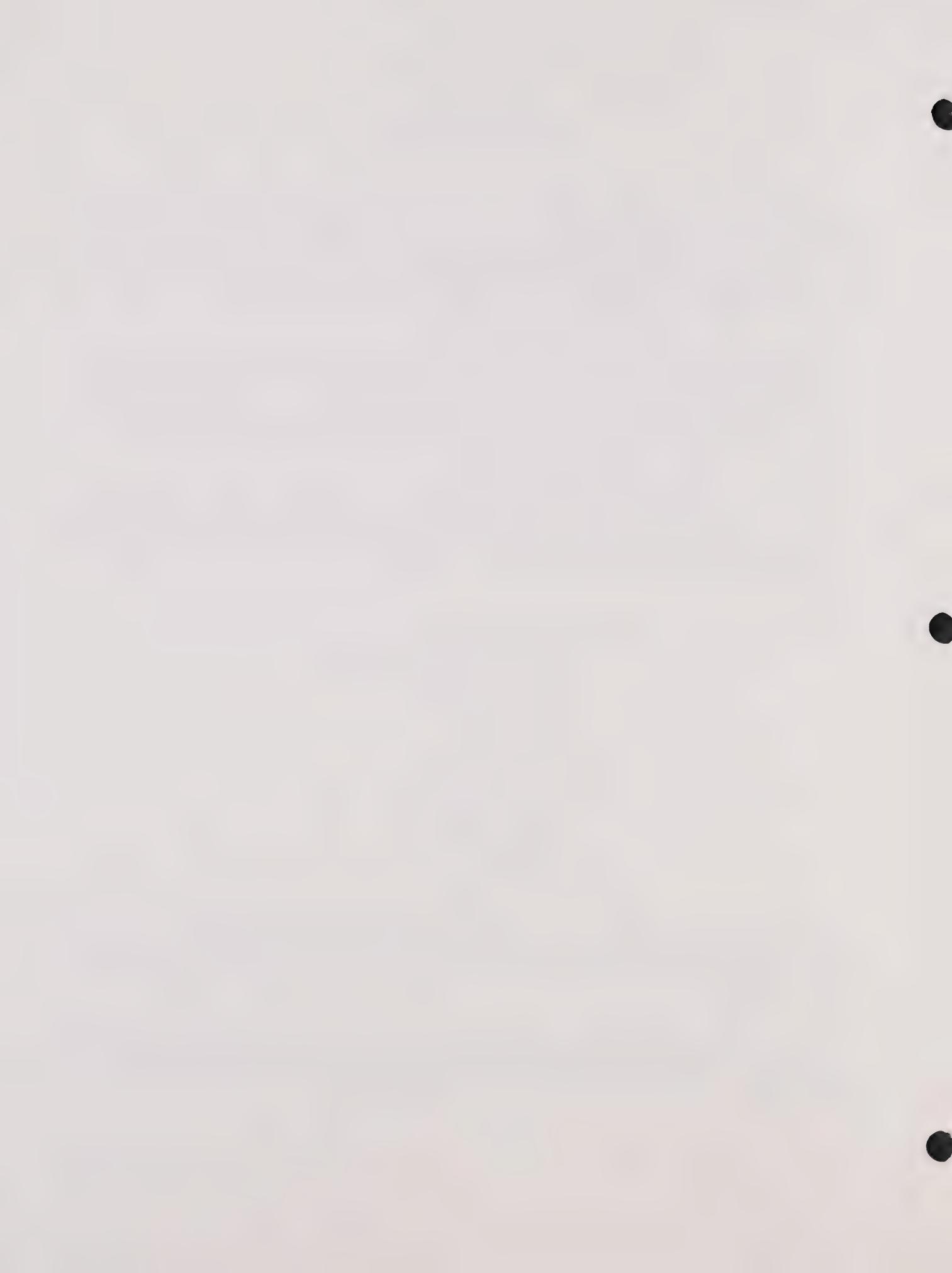
This analysis is based upon conceptual project information regarding the layout of the stadium site. The analysis also relies on many studies completed on other projects in the immediate area. As a result, the magnitude of the environmental effects identified in this preliminary analysis may vary somewhat, when more definitive plans are developed and as more detailed studies are subsequently completed.

The issues addressed in this Preliminary Environmental Analysis include:

- Land Use/Neighborhood Impacts
- Loss of Agricultural Land
- Biological Resources
- Noise
- Air Quality
- Odor
- Hazardous Materials
- Public Safety Issues
- Public Services
- Hydrology
- Cultural Resources
- Visual Impacts

These 12 issues are the primary concerns identified to date affecting the development of the site with the proposed ballpark facility. The Preliminary Environmental Analysis addresses these primary concerns and recommends methods of avoiding or reducing potentially significant impacts where appropriate.

If the City decides to proceed with the proposed project, formal environmental review, as required by the California Environmental Quality Act (CEQA), would be initiated. Based upon information known at this time, the form of such review would very likely be a full Environmental Impact Report (EIR).



SECTION II

SUMMARY OF FINDINGS

This section presents an overview of the conclusions of this Preliminary Environmental Analysis. The discussion focuses on the primary environmental impacts which are anticipated to occur if the proposed San Jose Baseball Stadium is constructed on a portion of the 195 acre site bounded by State Route 237 to the north, Coyote Creek to the east, Center Road to the south and Zanker Road to the west (see Figures 1, 2, and 3). Although the stadium would be constructed on approximately 130 acres of the 195 acre study area, this analysis evaluates the larger 195 acre study area to identify any site constraints which could affect, or could be affected by, the construction of the baseball stadium.

Overview

Although the proposed ballpark facility would result in some significant environmental impacts, there are no known conditions which would preclude the construction of the project on the site being considered. Figure 4 indicates the potential site constraints that may affect or be affected by the development of the baseball stadium within the study area.

The most critical issues of concern from an environmental perspective are traffic congestion during the weekday PM peak-hour commute, potential impacts to the Coyote Creek riparian corridor, chlorine-related hazards, and odor associated with the site's location near the San Jose/Santa Clara Water Pollution Control Plant. Other issues of concern include land use and neighborhood impacts, noise impacts, potential soil and groundwater contamination in the project vicinity, geologic, soils, and seismic conditions and the increased demand for services.

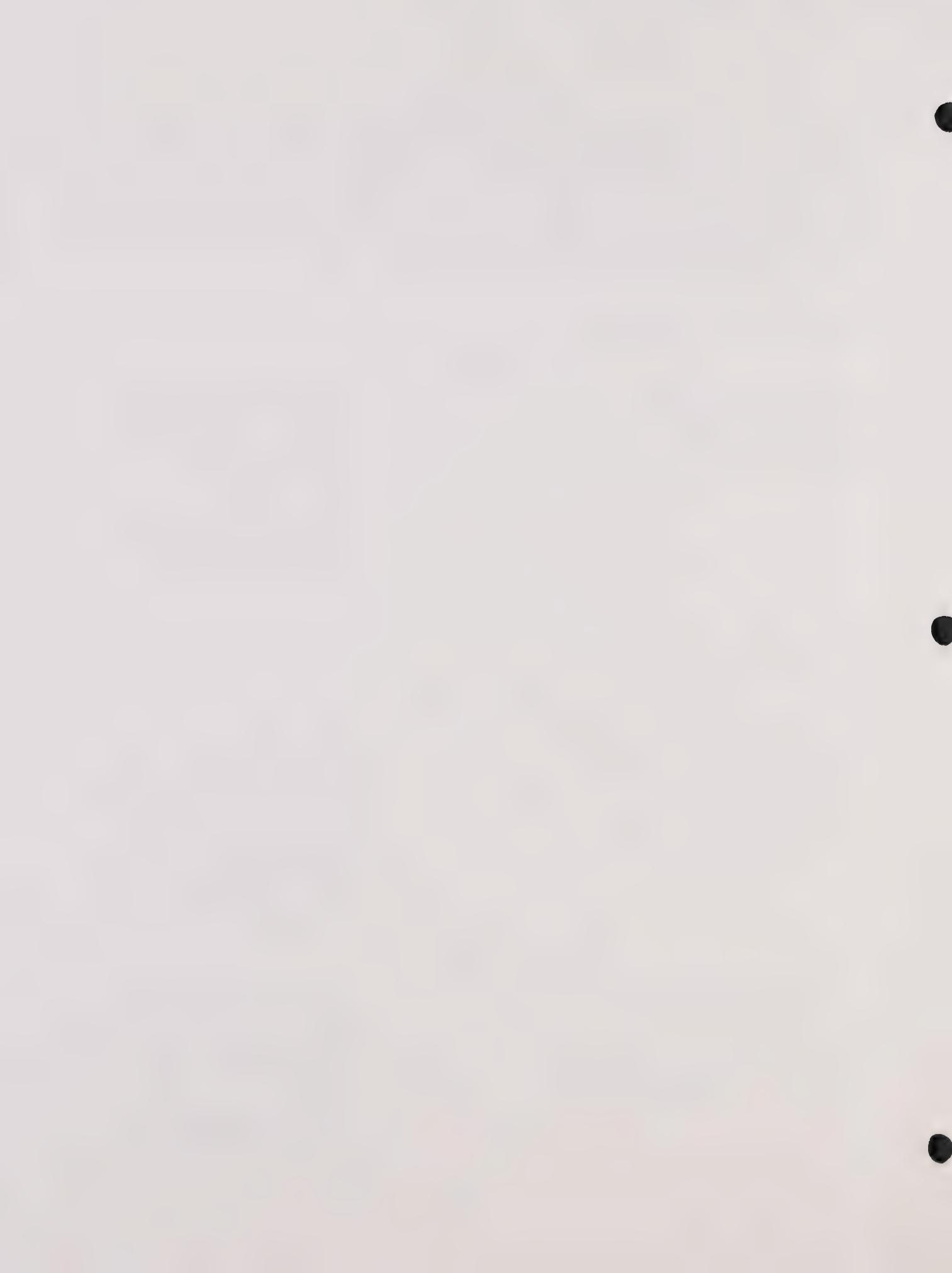
Issues pertaining to traffic congestion and the geologic, soils, and seismic conditions of the project site are addressed in two separate reports. Traffic-related impacts were evaluated by Barton-Aschman and Associates, Inc. and are contained in their *Preliminary Traffic Impact Analysis*. The geologic, seismic and soils conditions of the project site were evaluated by Woodward-Clyde Associates, Inc. and are contained in a preliminary report.



SUMMARY TABLE

The following summary table identifies the potential environmental issues and site constraints that may affect or be affected by the proposed ballpark. In addition, this table lists the recommended measures for reducing or avoiding the identified environmental issues. However, it is important to emphasize that this list is by no means comprehensive. Subsequent environmental review may result in the refinement of the discussion of impacts and mitigation measures provided in this document, as well as identify additional impacts and/or mitigation measures that will be necessary in order to implement the stadium at the proposed location.

<u>Environmental Issue/Site Constraint</u>	<u>Recommended Mitigation</u>
<u>LAND USE</u>	
<ul style="list-style-type: none"> • Increase in land use intensity. • Relocation of a portion or all of bus facility. • Change in land use type. • Neighborhood impacts/land use compatibility. 	<ul style="list-style-type: none"> • Locate ballpark to north and east. • Minimize relocation of bus facility. • Implement noise mitigation measures. • Implement traffic mitigation measures. • Direct lighting to avoid light and glare on surrounding land uses. • Provide extensive landscaping and physical barriers to separate stadium from adjacent sensitive receptors. • Implement parking controls to discourage parking at adjacent uses.
<u>LOSS OF AGRICULTURAL LAND</u>	
<ul style="list-style-type: none"> • Loss of 97 acres of prime farmland. 	<ul style="list-style-type: none"> • No feasible mitigation.
<u>BIOLOGICAL RESOURCES</u>	
<ul style="list-style-type: none"> • Potential loss of burrowing owl habitat. • Potential impacts to Creek and mitigation areas. • Potential impacts to bird migration. 	<ul style="list-style-type: none"> • Locate ballpark as far to the west as feasible. • Coordinate w/SCVWD, COE, and CCRS to avoid impacts to mitigation areas. • Conduct further biological surveys. • Direct lighting away from creek. • Locate fencing along western border of creek and mitigation areas. • Retain existing landscaping and install new landscaping.
<u>NOISE</u>	
<ul style="list-style-type: none"> • Increased noise levels due to stadium traffic. • Potential stadium-generated noise impacts. 	<ul style="list-style-type: none"> • Direct stadium noise away from sensitive receptors. • Construct sound walls around perimeter of sensitive receptors. • Use noise attenuating building materials. • Schedule concerts to avoid temperature inversion phenomenon. • Discourage nbhd. noise intrusion.



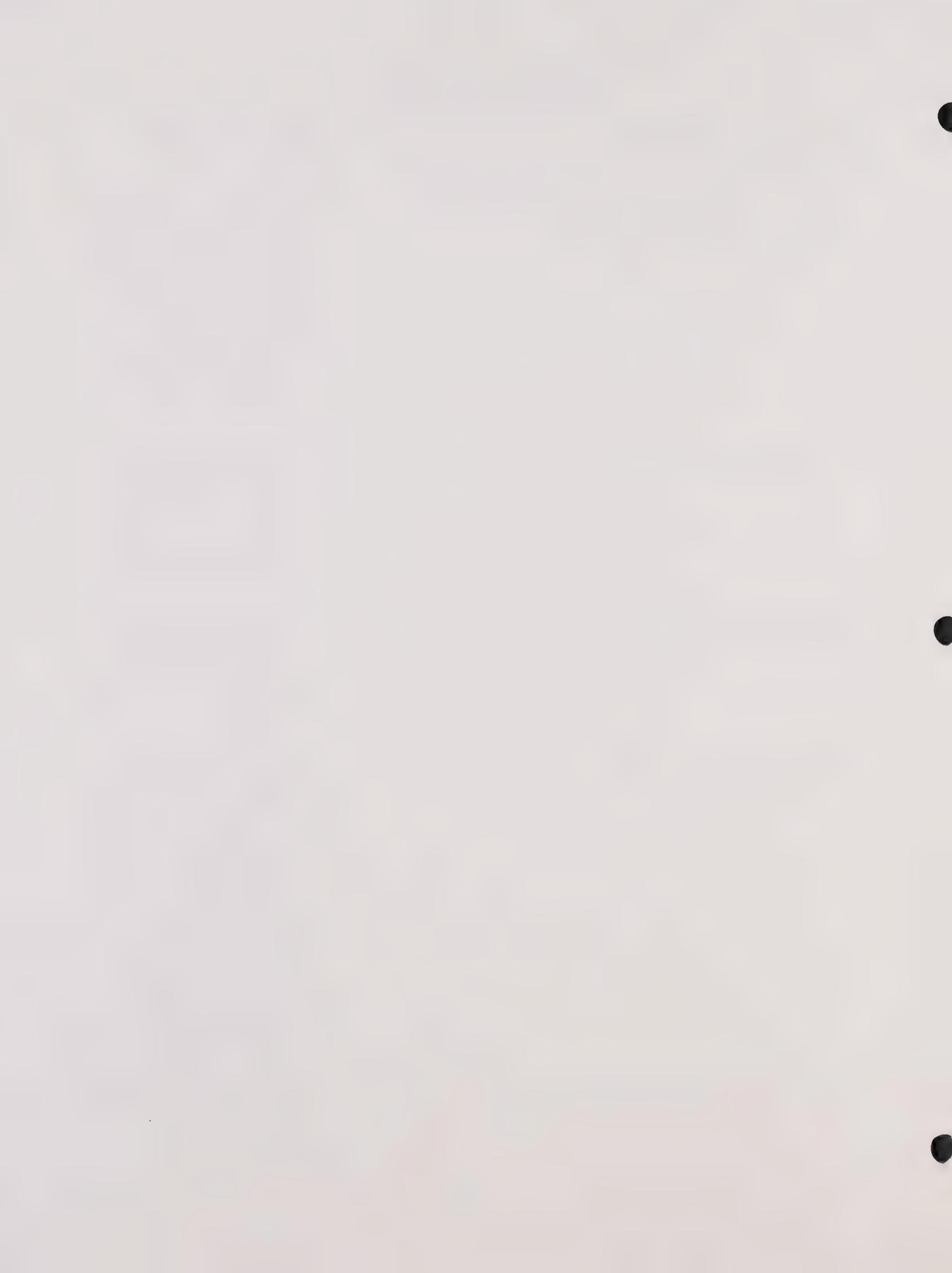
SUMMARY TABLE (cont'd)

<u>Environmental Issue/Site Constraint</u>	<u>Recommended Mitigation</u>
	<u>NOISE (cont'd)</u>
<ul style="list-style-type: none">Temporary construction noise impacts.	<ul style="list-style-type: none">Use noise-shielding devices. Schedule construction during daytime hours.
	<u>AIR QUALITY</u>
<ul style="list-style-type: none">Temporarily elevated levels of organic gas emissions, increased dustfall, and particulates.Local and regional traffic-generated air quality impacts.	<ul style="list-style-type: none">Minimize dust generation.Sweep/water exposed surfaces.Conduct air quality analyses for EIR.Develop TDM Program.Encourage use of LRT.City-sponsored/private shuttle buses to industrial/office land uses.
	<u>ODOR</u>
<ul style="list-style-type: none">Exposure to sewer vent odors.Occasional exposure to WPCP chlorine odors.	<ul style="list-style-type: none">DPW will install a soil biofilter at intersection of Zanker and Center Road to deodorize sewer vents. DPW will monitor vent at 237 and Zanker to determine if a biofilter is needed at this location.Plant trees, bushes, and shrubs along southeastern edge of WPCP.Plant eucalyptus trees along northern edge of Route 237 from Zanker east to McCarthy Blvd.
	<u>HAZARDOUS MATERIALS</u>
<ul style="list-style-type: none">Possible on-site and off-site contamination.	<ul style="list-style-type: none">Perform Phase I and Phase II site assessments in the study area.Cease work if additional contaminated sites are encountered with construction.Avoid activities in areas where remediation is occurring and areas where monitoring wells are located.Properly seal and close existing agricultural wells.



SUMMARY TABLE (cont'd)

<u>Environmental Issue/Site Constraint</u>	<u>Recommended Mitigation</u>
	<u>PUBLIC SAFETY</u>
• Presence of two high pressure gas lines.	<ul style="list-style-type: none">• Relocate gas lines a minimum of 250 feet from the stadium.• Implement an emergency response and evacuation plan.• Landscaping in the pipeline right-of-way should be designed to avoid damage due to deep-rooted plants.• Obtain approval from PG&E for all uses within the right-of-way prior to construction or excavation.
• Presence of Cogeneration Plant.	<ul style="list-style-type: none">• Perform a detailed surface reconnaissance of the plant.• Consider construction of physical barriers around the perimeter of the Cogeneration Plant.• Place security patrols on duty at the overflow parking lots.
• Presence of bus maintenance facility.	<ul style="list-style-type: none">• Perform a detailed surface reconnaissance of bus yard.• Consider physical barriers around the perimeter of the bus yard.• Place security patrols on duty near the bus yard.
• Potential chlorine exposure/hazards.	<ul style="list-style-type: none">• Schedule transport of liquid chlorine to avoid events.• Construct railroad car berthing area containment structure.• Construct an earthen berm between the berthing area and Los Esteros Road.• Install early warning systems at the stadium.• Design parking lot and stadium exits for safe evacuation. Locate building exits on the south side of the stadium.• Incorporate topographic features into the design to provide atmospheric dispersion.• Provide a heliport on site.
• Potential pedestrian/railroad conflicts.	<ul style="list-style-type: none">• Install fencing and discourage at-grade pedestrian crossing.



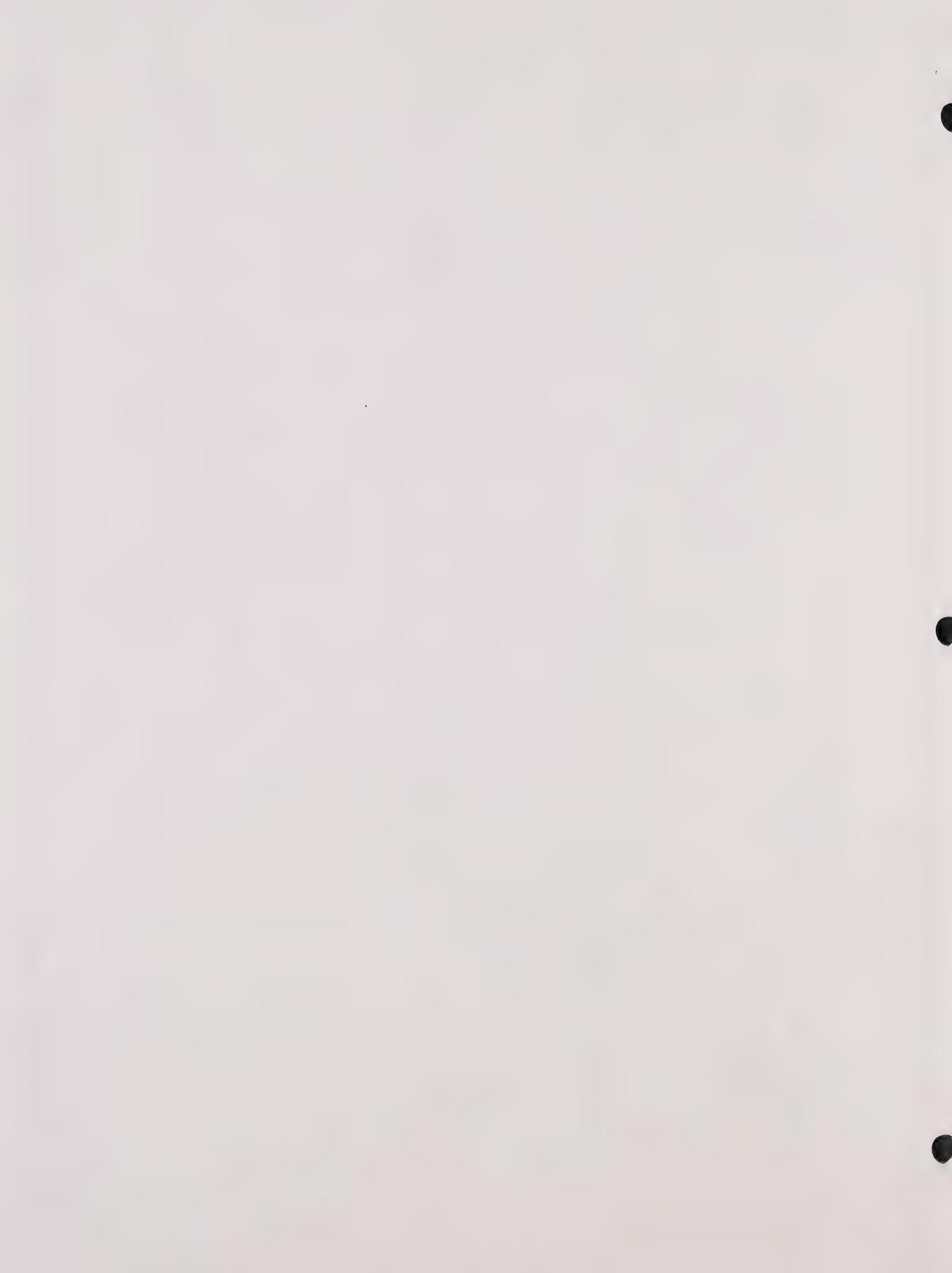
SUMMARY TABLE (cont'd)

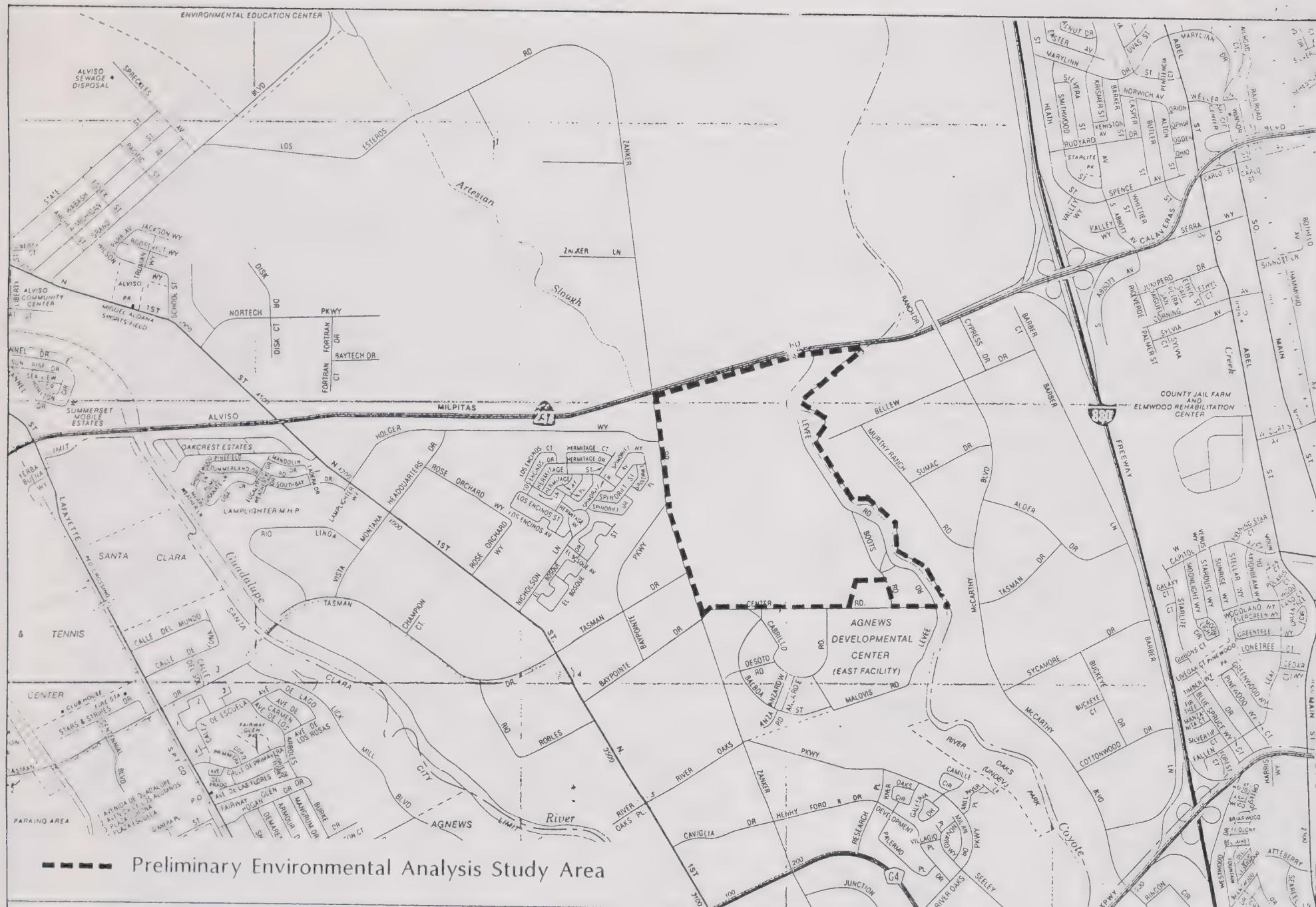
<u>Environmental Issue/Site Constraint</u>	<u>Recommended Mitigation</u>
	<u>PUBLIC SERVICES</u>
<ul style="list-style-type: none">• Increased demand for electricity. Potential exposure to gas line-related hazards.• Potential for sewer gases in the interceptors to leak into the on-site sewer system.• Increased demand for water.• Increased demand for fire and police protection.	<ul style="list-style-type: none">• Relocate gas lines and overhead electrical lines.• Construct a small access structure to allow 10" line connection to 84" line.• Extend connection to existing water mains off-site.• Implement water conservation measures.• Provide security patrols and on-site security facilities.• Provide additional "911" lines.• Establish Joint Powers Police Force.• Extend additional water mains and hydrants for adequate fire flow supply.
	<u>HYDROLOGY</u>
<ul style="list-style-type: none">• Increase in impervious surfaces and storm runoff.• Potential flooding problems in the unlikely event that overflow parking is proposed in the overflow channel.• Depressing the ballpark structure up to 22 feet in depth would result in potential flooding impacts due to the high groundwater table.	<ul style="list-style-type: none">• Coordinate w/SCVWD and COE to ensure completion of flood control project prior to stadium construction.• Coordinate w/SCVWD and COE to obtain a permit for locating parking in overflow channel.• Install a de-watering system as described in the preliminary geotechnical report. This system would likely require a permit from the SCVWD.
	<u>CULTURAL RESOURCES</u>
<ul style="list-style-type: none">• Potential impacts to archaeological and historical resources.	<ul style="list-style-type: none">• Conduct further cultural resources evaluations.• Consult w/SHPO, if Tasman Drive bridge is widened across Coyote Creek or if it is relocated.





FIGURE 1





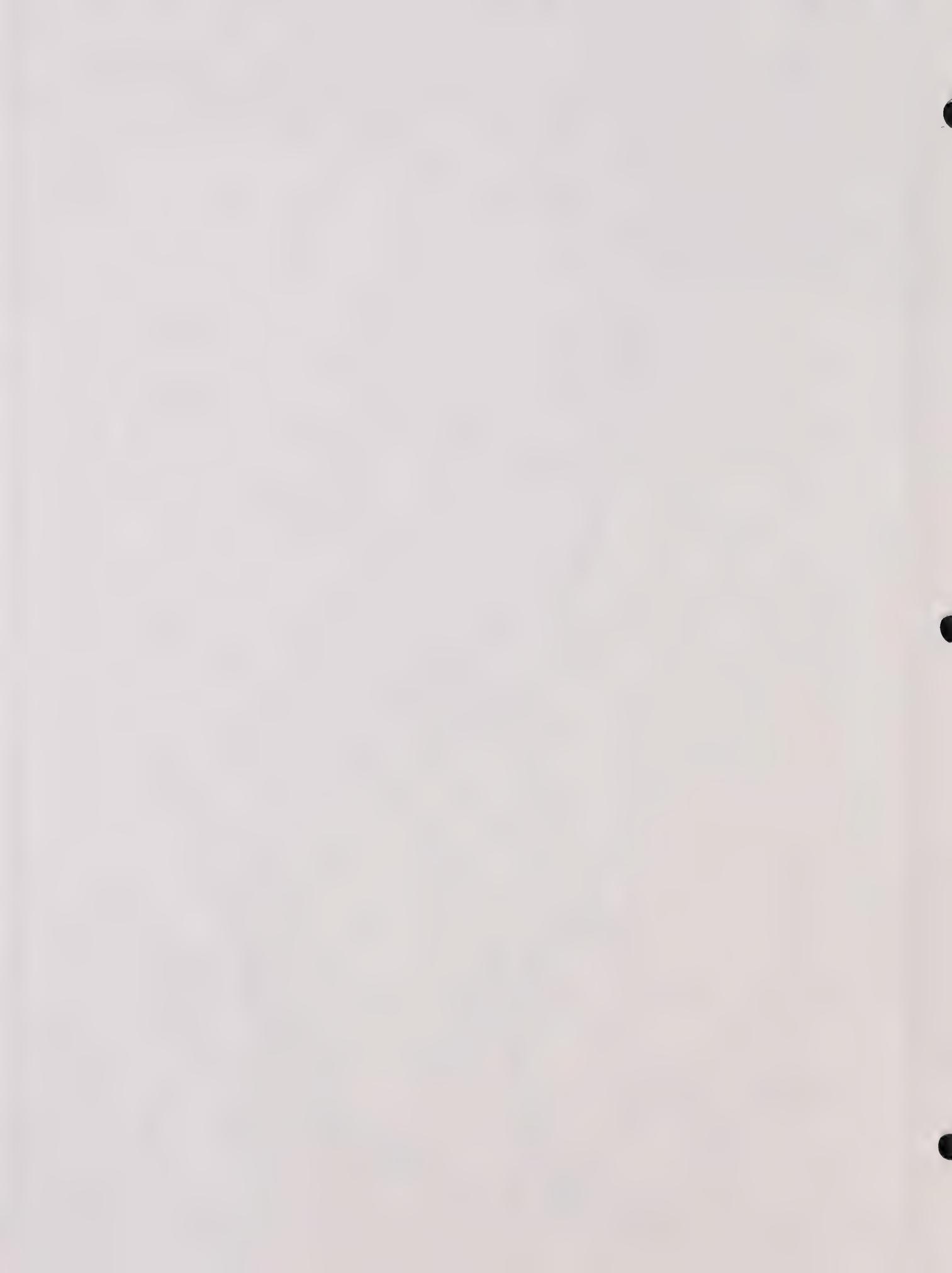
Preliminary Environmental Analysis Study Area

VICINITY MAP

$$1'' = \pm 2200'$$



FIGURE 2





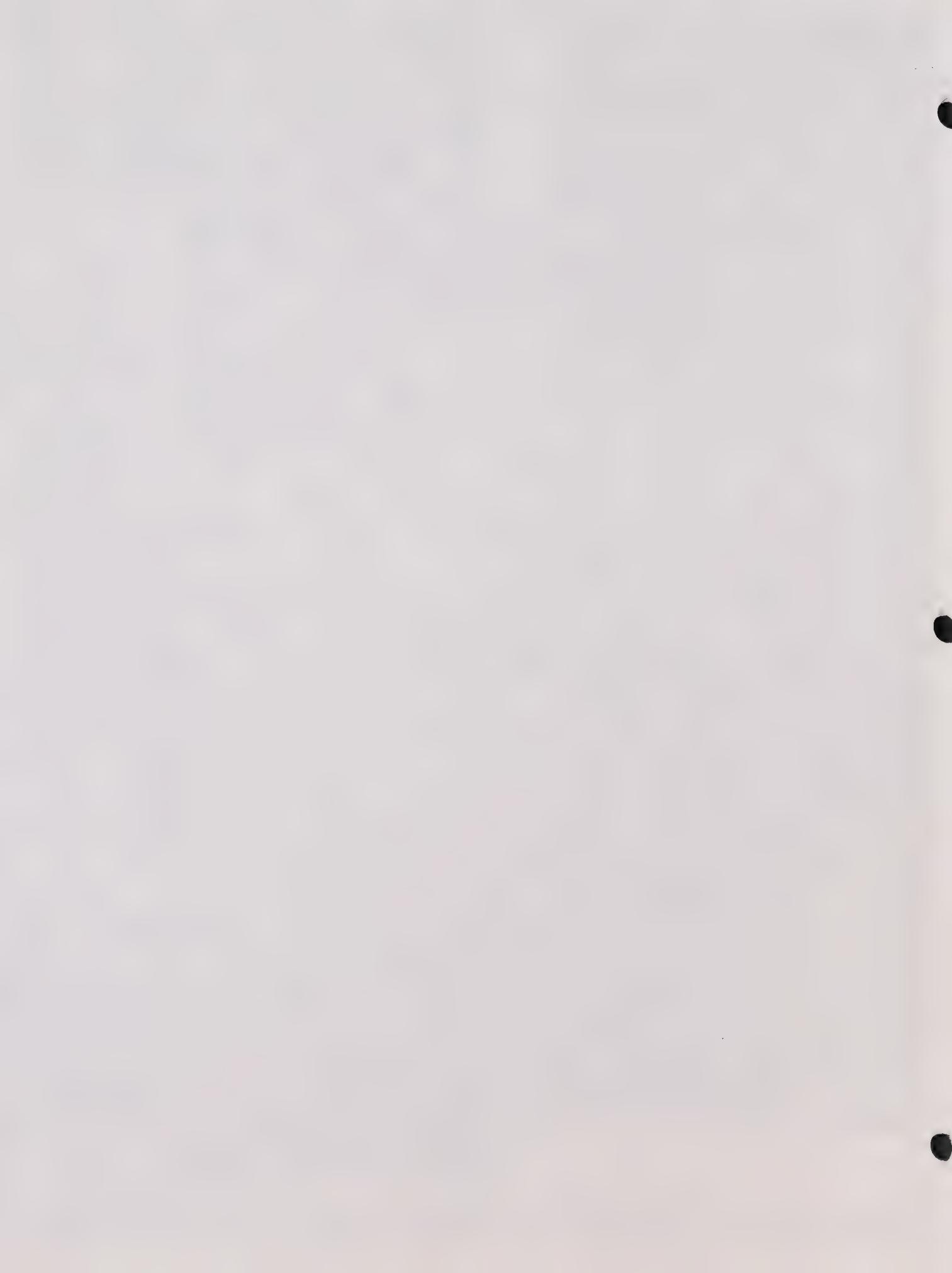
— Preliminary Environmental Analysis Study Area

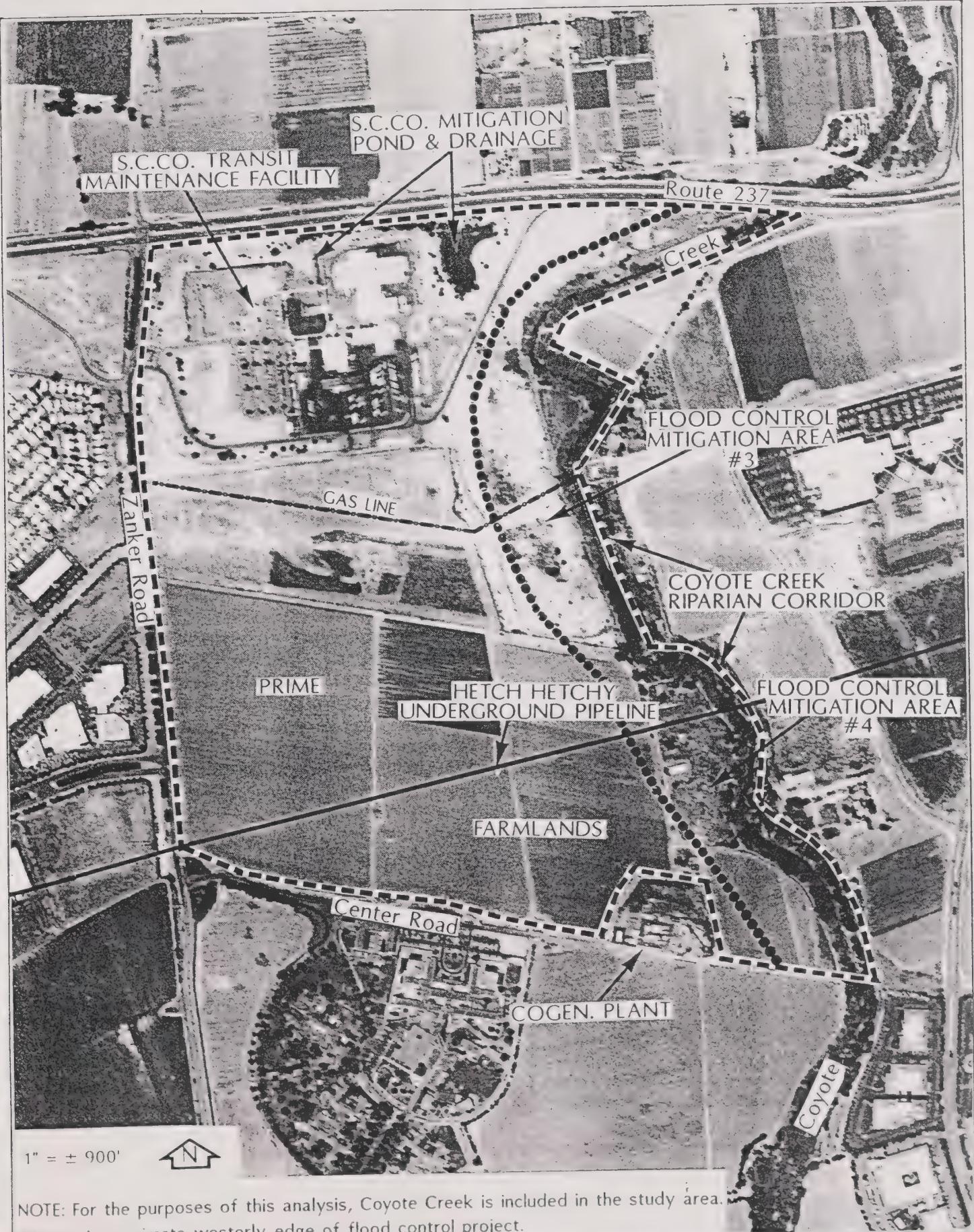
1" = ± 1430'

PHOTO DATE: 7-8-91

AERIAL PHOTOGRAPH OF THE PROJECT AREA

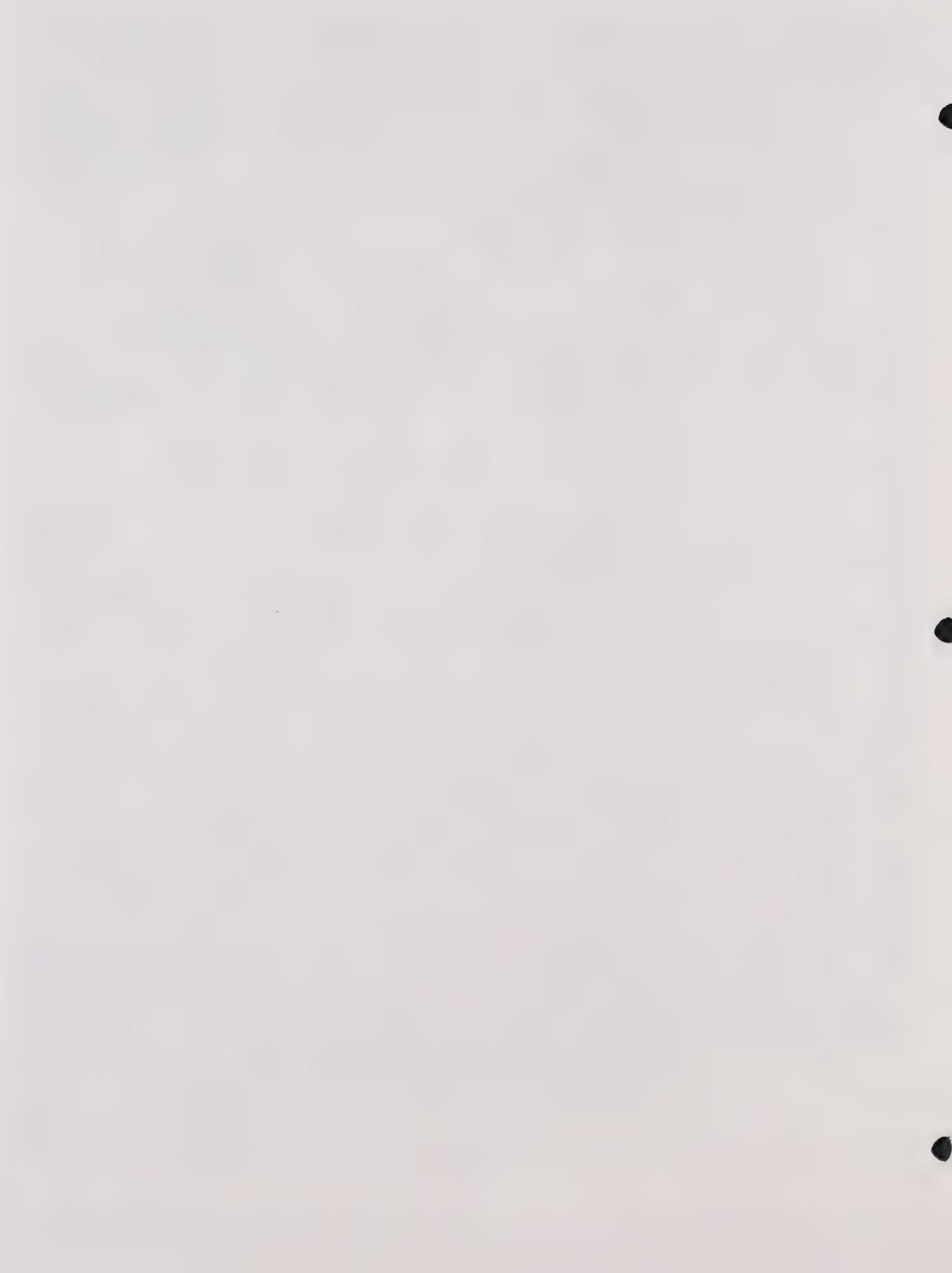
FIGURE 3





SITE CONSTRAINTS

FIGURE 4



SECTION III

OVERVIEW OF THE PROPOSED PROJECT

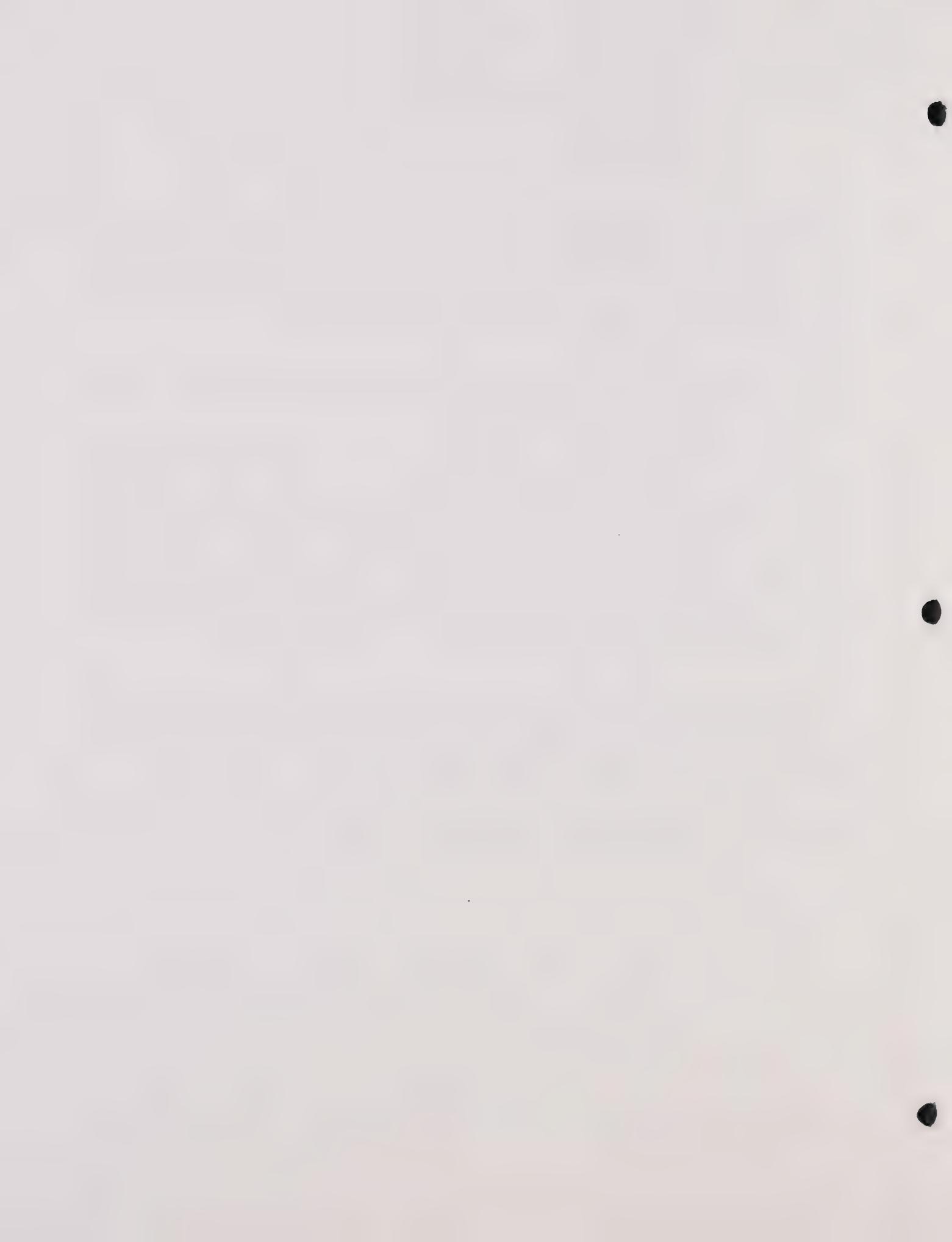
The proposed project is the construction of a 48,000 seat, open air, traditional baseball park with a natural grass playing field. The ballpark would be located on a portion of a 195 acre site in the City of San Jose as shown on Figures 1 and 2. The site is generally bounded by State Route 237 to the north, Coyote Creek to the east, Center Road to the south, and Zanker Road to the west (see Figure 3). The ballpark facility would either be constructed at grade, depressed 10 feet below grade, or depressed approximately 20 feet below grade. Depending upon whether the structure is depressed, the facility could reach a height of up to 170 feet.

The ballpark facility would house concession stands, novelty stands, vendor commissaries, public restrooms and telephones, ticket windows, team and security offices, an emergency medical treatment room, press facilities, luxury boxes, and other uses typical of a ballpark.

The project includes the construction of several large surface parking lots surrounding the stadium itself, for a total of approximately 13,640 parking spaces. The parking lots would include approximately 2,151 VIP parking spaces, 11,487 spaces for season ticket holders, the general public, and overflow parking. The overflow lots would be primarily located on the south side of the future Tasman Drive and Light Rail Transit extension which will traverse the southern portion of the site. A pedestrian undercrossing would be constructed to provide a safe pedestrian connection from the overflow parking area to the ballpark. Approximately 60 bus parking spaces would also be provided on the site. It is important to note that this Preliminary Environmental Analysis generally identifies the potential constraints of locating overflow parking in the flood control project overflow channel, in the unlikely event that such parking is proposed as part of the ballpark project.

The construction of a ballpark at this location may result in the widening of the future Tasman Drive extension from four lanes to six lanes, in order to accommodate ballpark traffic. In addition, one new Light Rail Transit (LRT) track may be added to the two Tasman Corridor LRT tracks that are planned to traverse the southern half of the project site. An LRT platform may also be constructed to provide a station to serve ballpark patrons.

Although the primary use of the proposed ballpark would be for major league baseball, the facility is anticipated to also be used for other events during the year, such as concerts.



SECTION IV

SUMMARY OF RELEVANT PROJECTS

The implementation of the following projects is anticipated to affect the conditions surrounding the baseball stadium site. In turn, construction of the stadium at the proposed location is also likely to affect these projects. A brief description of each of these projects is provided below.

State Route 237 Freeway Upgrade Project

The purpose of the Route 237 Freeway Upgrade Project is to alleviate existing and future traffic delay and congestion on Route 237 and other major corridors and connected arterials. The project consists of the upgrading of 6.3 miles of State Route 237. Caltrans proposes to upgrade all of the existing intersections and interchanges between Mathilda Avenue in Sunnyvale and Interstate 880 in Milpitas. The ultimate project would consist of the construction of an eight-lane freeway, including HOV lanes, auxiliary lanes, new interchanges, and reconstruction of the existing interchanges and bridges. The interim project consists of a six-lane freeway, including HOV lanes.

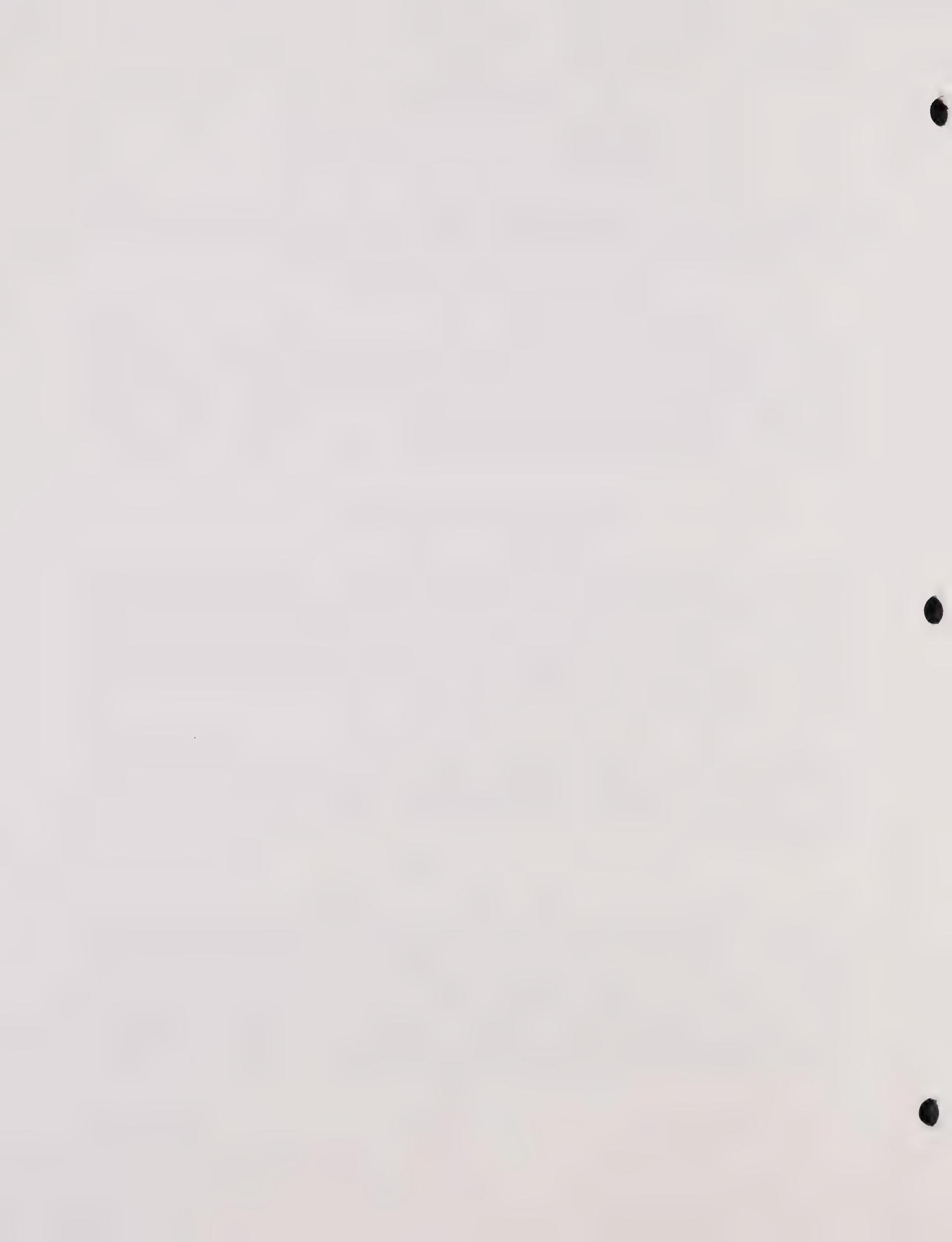
Tasman Drive/I-880 Interchange and Tasman Drive/Capitol Avenue Extension

The proposed Tasman Drive/I-880 and Tasman Drive/Capitol Avenue Project involves the extension of Tasman Drive to connect with Capitol Avenue on the eastern side of I-880, and to the west across Coyote Creek into San Jose. The project would also involve the construction of an interchange on I-880 at Tasman Drive, with auxiliary merging lanes on I-880 extending north to State Route 237 and south to Montague Expressway. The project would be compatible with the Tasman Corridor Light Rail Transit project and the possible intermodal transfer facility between the proposed LRT and BART lines. Within the stadium study area, the Tasman Drive extension is proposed to be a four-lane roadway facility.

The Federal Highway Administration and Caltrans completed a Draft EIR/Environmental Assessment for the Tasman Drive Project in June, 1991. The project is expected to be completed in four stages, the first of which is scheduled to commence in 1992. The completion date of the four stages is presently unknown, pending the identification of funding sources to complete the fourth stage of work.

Tasman Corridor LRT Project

The Tasman Corridor is a major east-west transportation corridor which generally parallels State Route 237 between Mountain View on the west and Milpitas on the east. The Urban Mass Transportation Administration (UMTA) and Metropolitan Transportation Commission (MTC) prepared an EIS/EIR that addressed eight project alternatives which include: the No Build Alternative, Transportation Systems Management, High Occupancy Vehicle/Express Bus, and five Light Rail Transit alternatives from Milpitas to Mountain View and/or Sunnyvale. The locally-preferred alternative is the construction of LRT in the corridor. In the vicinity of the ballpark site, the LRT would be constructed in the median of Tasman Drive. The nearest LRT station to the proposed stadium site may be located at Zanker Road.



Coyote Creek Flood Control Project

The Coyote Creek Flood Control Project is planned to protect areas of lower Coyote Creek, between Montague Expressway and San Francisco Bay, which have experienced severe flooding problems in recent years. As described in the November, 1987 Interim Feasibility Report/Final Environmental Impact Statement, Coyote Creek and Berryessa Creek, improvements to the creek would involve construction of 24-foot levees setback from the existing stream channel. In addition, an earthen overflow channel will be excavated within the creek right-of-way.

The flood control improvements will result in the loss of 13.6 acres of riparian habitat along the approximately five-mile creek corridor within the project limits. Mitigation for this loss of habitat will consist of the creation of 41 acres of new riparian habitat at nine sites along Coyote Creek. Two of the nine mitigation areas (Areas #3 and #4) are located on the ballpark site. In addition, a third area is located on a portion of the Agnews Developmental Center property, and would be bisected by the proposed Tasman Drive Extension. The Tasman Drive project will be required to implement this mitigation area in a different portion of the Santa Clara Valley Water District right-of-way.

San Jose/Santa Clara Water Pollution Control Plant Expansion

The San Jose/Santa Clara Water Pollution Control Plant (WPCP) is located approximately 1.5 miles to the northwest of the proposed stadium site. The existing capacity of the WPCP is 167 million gallons per day of wastewater. No increases in processing capacity are anticipated within the next 10 to 15 years. The WPCP operations are surrounded by buffer lands that are presently leased for agricultural uses. It is anticipated that these lands may be used for WPCP activities sometime in the future. One possible use may include the development of a water reclamation facility and pond.

Private Development

Several private development projects are anticipated to be developed within the project vicinity. One proposal consists of development of the McCarthy Ranch property located in the northwest quadrant of I-880 and State Route 237. An 801,000 square foot shopping center may be proposed on approximately 81 acres of the McCarthy Ranch site. Future residential development may also occur to the north of the commercial area. However, the current status of this property is uncertain, since there are no applications on file with the City of Milpitas.

Construction of the Milpitas Business Park will occur in the coming years on land to the east of Coyote Creek and south of Route 237.

High density residential development and neighborhood/community commercial uses are proposed in the southwestern corner of the Tasman Drive/Zanker Road intersection. Presently, a General Plan amendment application is on file for the high density residential development proposal. The anticipated completion of this development is unknown.



SECTION V

REGULATORY AGENCY INVOLVEMENT

The City of San Jose would take the primary discretionary action of approving the proposed stadium. Additional discretionary approvals include amending the General Plan. Once the project is approved, the following actions would automatically occur during the course of project design and construction:

- acquisition of real property,
- relocation of the bus maintenance facility,
- vacation of rights of way,
- grading permit,
- building permit, and
- award of contract for construction of the stadium.

It is also possible that the following additional approvals may be necessary, if the development of any stadium facilities would result in the disturbance of areas within the Coyote Creek Riparian Corridor, in the overflow channel, and/or the mitigation areas.

- Santa Clara Valley Water District Permit,
- U.S. Army Corps of Engineers Section 404 Permit, and
- California Department of Fish and Game Streambed Alteration Agreement.

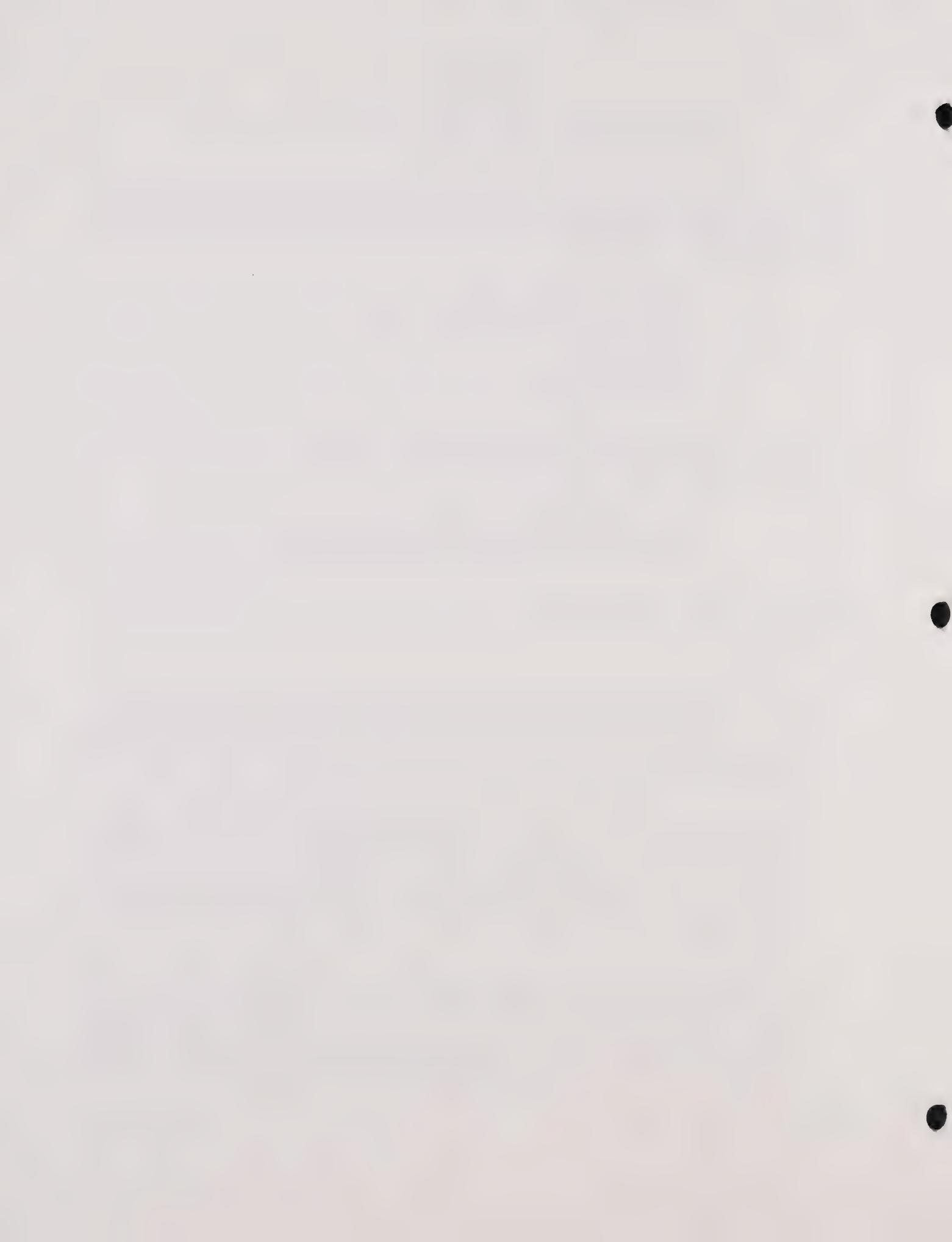
A summary of the public agencies that may be involved in various aspects of the project approval and construction process is provided below.

A. FEDERAL AGENCIES

The U.S. Army Corps of Engineers would be involved in the event that the construction of the stadium affects the implementation of the flood control improvements planned in this reach of the Coyote Creek Flood Control Project. Consultation with the Corps of Engineers would also be necessary if the future Tasman Drive bridge across Coyote Creek is widened to accommodate a six-lane Tasman Drive extension.

Section 404 (b)1 of the Clean Water Act, which is administered by the Corps, addresses the preservation of water quality, and consequently requires the Corps of Engineers to evaluate the impacts of the discharge of dredged or fill material into waters of the United States. As a result, a Section 404 permit would be required for additional or expanded bridge crossings. A Section 404 Permit may be required for the placement of overflow parking within the overflow channel constructed as part of the Coyote Creek Flood Control Project.

The U.S. Fish and Wildlife Service would be involved in an advisory capacity to assist the Corps of Engineers, if the proposed ballpark affects the riparian corridor along Coyote Creek. The Fish and Wildlife Coordination Act requires that Federal agencies proposing alteration of a stream, other body of water, or a stream channel must consult with the U.S. Fish and Wildlife Service and the appropriate State agency. Section 7 of the Endangered Species Act requires Federal agencies to consult with the Secretary of the



Interior through the U.S. Fish and Wildlife Service to avoid impacting any endangered or threatened species.

Consultation with Fish and Wildlife Service would be necessary if the stadium causes disturbance to the flood control project mitigation areas #3 and #4. In addition, if the future Tasman Drive bridge is widened along Coyote Creek and disturbs additional habitat, Fish and Wildlife may determine that additional mitigation is warranted. If the ballpark includes overflow parking within the flood control overflow channel, significant involvement from Fish and Wildlife Service can be anticipated.

Consultation with the Federal Highway Administration (FHWA) may be necessary if the roadway network necessary to serve the ballpark necessitates modifications to State Route 237. FHWA standards require that Federally-funded highway projects in urban areas have interchanges spaced at least one mile apart, or FHWA must be satisfied that interchanges that are less than one mile apart are necessary and will not adversely affect freeway operations. An exception to this policy would be necessary if an on ramp at Route 237 between Zanker Road and Coyote Creek is proposed, since it would be located within less than one mile from the Zanker Road/237 and McCarthy Blvd./Route 237 interchanges.¹

Coordination with the Urban Mass Transportation Administration (UMTA) could be necessary during the design of the ballpark project, if, as part of the project, changes to the Tasman Corridor LRT alignment on the project site occur.

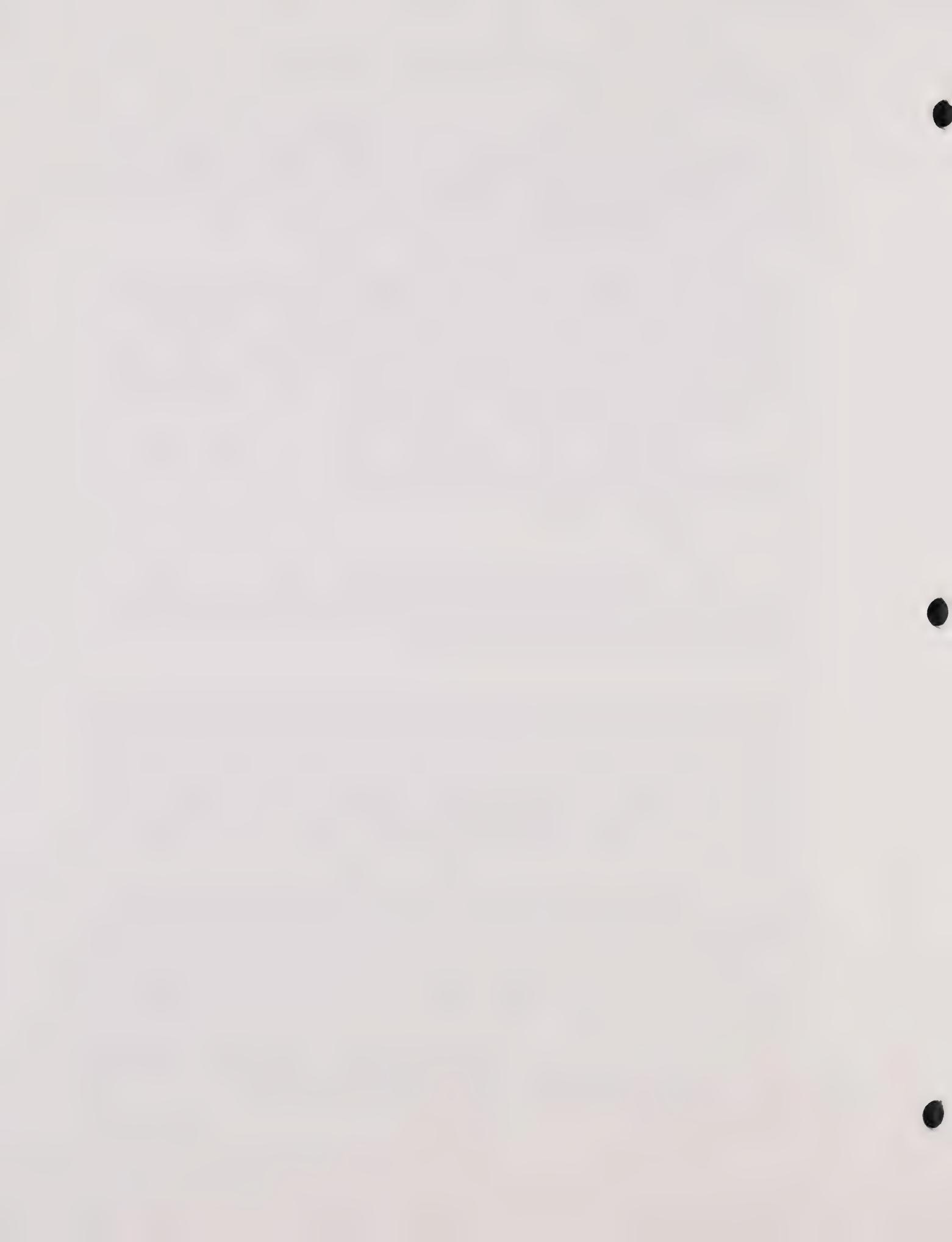
B. STATE AGENCIES

Approval from the California Department of Transportation (Caltrans) will be necessary if the ballpark necessitates the alteration of any State roadway facilities in the study area. Changes to Caltrans facilities would require an encroachment permit, at a minimum. Caltrans would also be involved if the ballpark results in any adverse impacts to regional roadway facilities.

The Regional Water Quality Control Board (RWQCB) is the State agency which administers State and Federal water quality programs at a regional level. Pursuant to Section 405 of the Water Quality Act of 1987, a new set of regulations to control stormwater pollution from municipalities and selected industries is being implemented. As a result, San Jose will be required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit. Consultation with the RWQCB may be necessary once the NPDES Permit is obtained, to ensure that the ballpark facilities do not adversely affect the conditions of the permit. Additionally, the RWQCB may be involved during the remediation of any groundwater contamination sites within the study area.

The California Department of Fish and Game would be involved if the proposed ballpark affects the riparian corridor along Coyote Creek. Consultation with Fish and Game would be necessary if the stadium causes disturbance to the flood control project mitigation areas #3 and #4. In addition, if the future Tasman Drive bridge is widened across Coyote Creek and disturbs additional habitat, Fish and Game may determine that additional mitigation is warranted. If the ballpark includes overflow parking within the flood control

¹ Construction of another on ramp or other changes to Route 237 would require preparation of supplemental environmental documents which meet both NEPA and CEQA requirements.



overflow channel, significant involvement from Fish and Game can be anticipated. A Streambed Alteration Agreement may be required in the event that parking is proposed within the overflow channel.

The construction of the ballpark at the study area location would involve negotiations with the California Department of Health Services (DHS) which is the State agency that oversees the Agnews Developmental Center. A portion of the study area proposed for the stadium site is owned by the Department of Health Services/Agnews Center. Coordination with DHS will be necessary to avoid or reduce impacts from the ballpark on Agnews. The State has preliminarily requested that ballpark development occur at least 400 feet away from the northern edge of the Developmental Center facilities. Additionally, DHS may be involved in the remediation of any soil or groundwater contamination sites within the study area.

Consultation with the State Office of Historic Preservation (SHPO) may be required if additional impacts to the recorded site along Coyote Creek occurs with the possible expansion of the Tasman Drive Bridge. Section 106 of the National Historic Preservation Act establishes criteria for eligibility for inclusion on the National Register of Historic Places. One recorded site along Coyote Creek is eligible for inclusion on the Register of Historic Places. The agencies involved in the construction of the Tasman Drive extension are anticipated to mitigate any impacts to this resource. However, if the stadium project results in additional impacts to the site, coordination with SHPO may be necessary to determine the extent of additional mitigation requirements.

Consultation with the California Air Resources Board (ARB) may be required if the development of a baseball stadium within the study area results in additional impacts to air quality. Consultation with the ARB is most likely to occur through the Bay Area Air Quality Management District (BAAQMD), since the ARB provides guidance to the BAAQMD in its efforts to improve overall air quality.

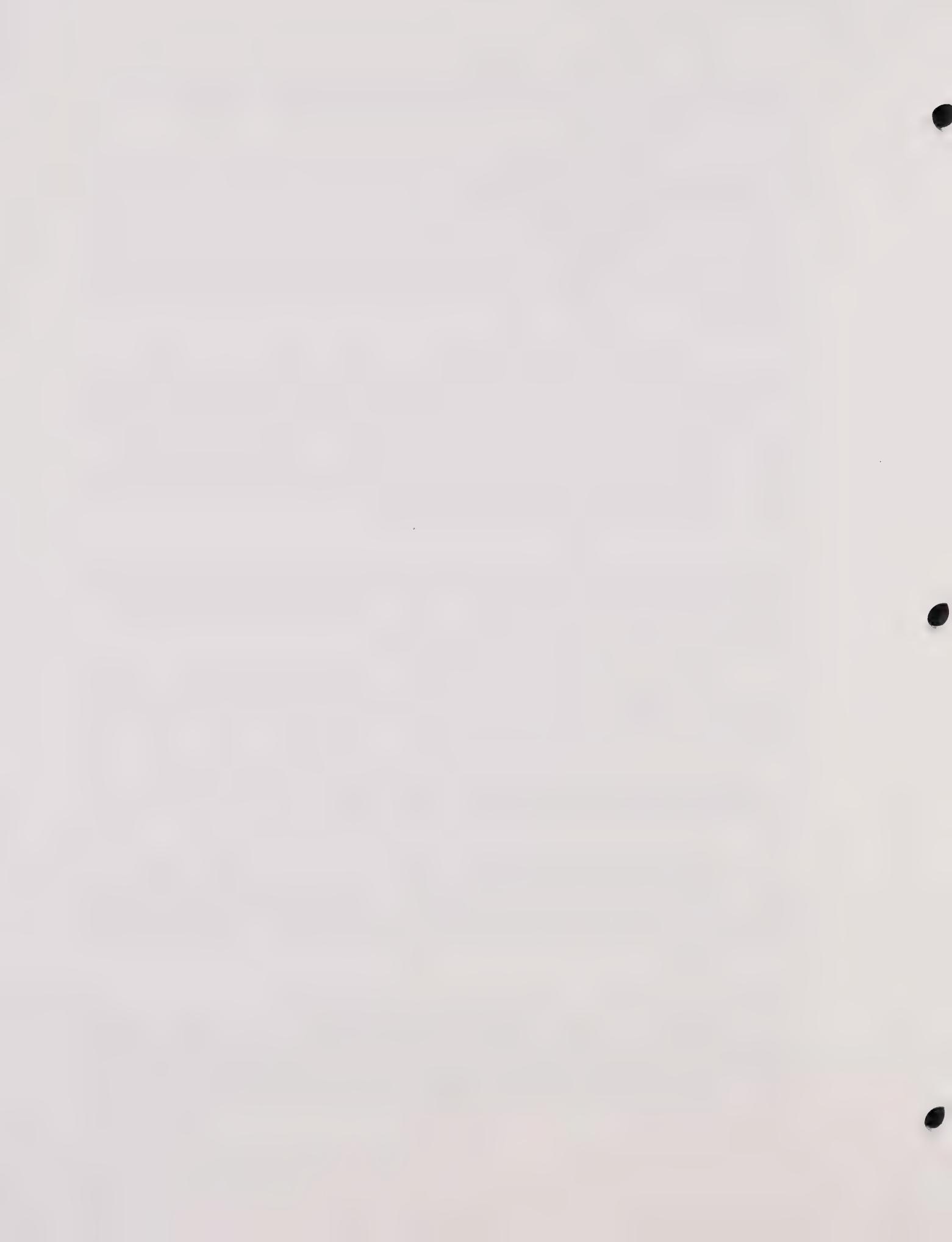
Coordination with the California Highway Patrol Long Range Planning would be necessary to provide safe regional transportation facilities during stadium events. It is anticipated that the Highway Patrol would be responsible for providing traffic control along State Route 237.

The California Department of Industrial Safety may require consultation if the construction of any ballpark facilities affects the Hetch Hetchy aqueduct which traverses the project site.

The California Public Utilities Commission would be involved if the construction of the ballpark facility results in changes to, or the relocation of, the existing utility infrastructure in the study area. Presently, the San Francisco Water Department Hetch Hetchy aqueduct traverses the project site. In addition, two gas lines and overhead electrical lines are present on the site.

C. REGIONAL AGENCIES

The San Francisco Bay Conservation and Development Commission (BCDC) maintains jurisdiction over "submerged lands and tidelands that are part of the open Bay waters, all sloughs and also all marshlands subject to tidal action of up to five feet above mean sea level." Given that the site is located away from the Bay, but is adjacent to Coyote Creek



which empties into the Bay, it is anticipated that BCDC may have limited peripheral involvement in the planning of the ballpark. However, no BCDC approvals will be required.

The Bay Area Air Quality Management District (BAAQMD) is responsible for implementing the provisions of the Bay Area '91 Clean Air Plan. Coordination with the BAAQMD may be necessary, if the development of the stadium results in significant air quality impacts. Additionally, as the regulatory agency that permits the stationary pollutant emissions from the Agnews Cogeneration Plant, the BAAQMD would be involved in ensuring that the plant does not create significant health hazards for stadium patrons.

The San Francisco Water Department would be involved during the design, engineering, construction, and operation of the baseball stadium, if it is constructed at this location. The Hetch Hetchy aqueduct traverses the southern half of the study area. The aqueduct right-of-way is owned by the City and County of San Francisco, and is administered by the San Francisco Water Department. Careful site design and construction will require coordination with the Water Department to ensure that damage to the aqueduct is avoided.

Consultation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) may be necessary, given their role in regional transportation, air quality, and land use planning efforts.

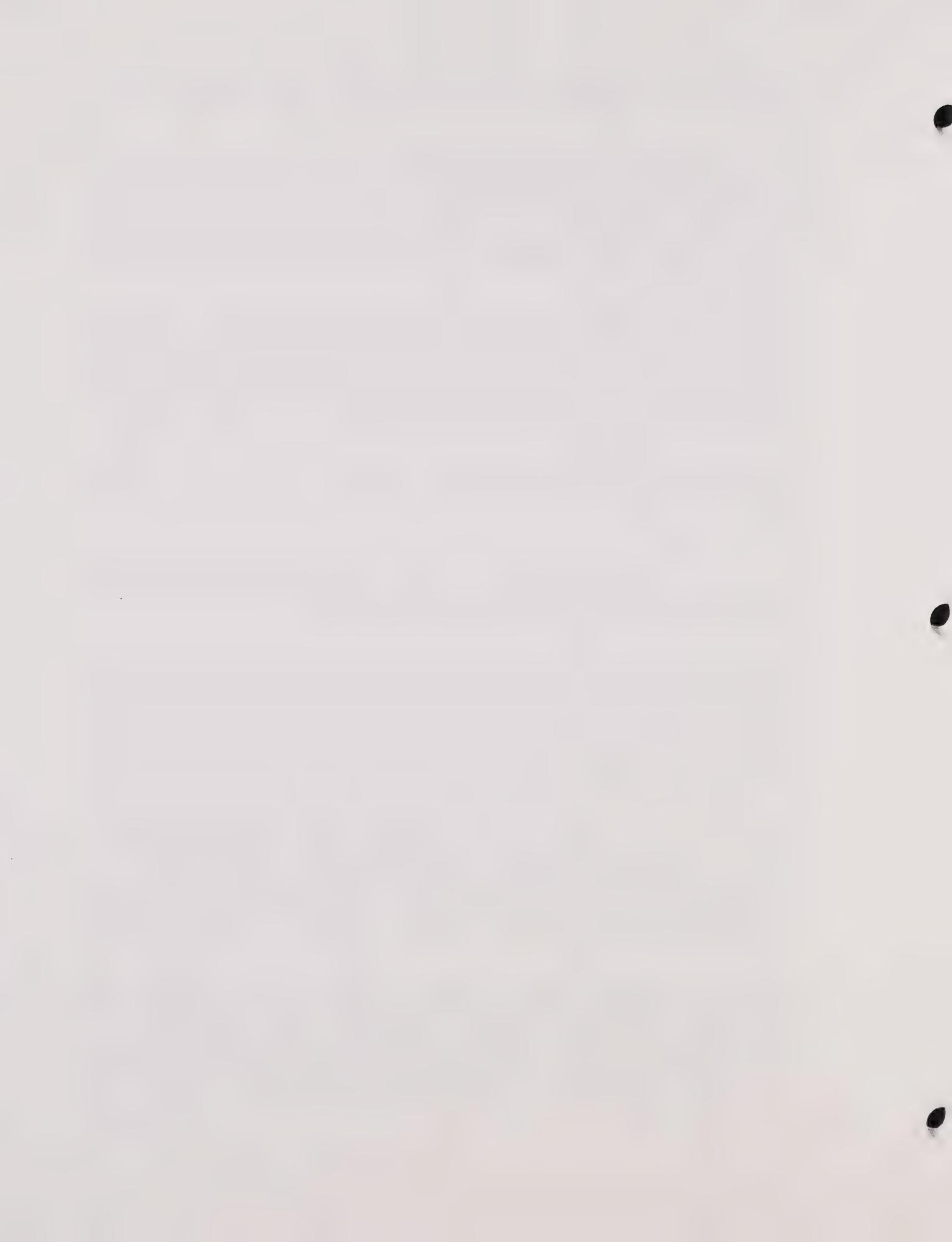
D. LOCAL AGENCIES

Consultation with the County of Santa Clara and all relevant departments (i.e., Advance Planning Office, Parks and Recreation, etc.) may be necessary to ensure that the ballpark development would not adversely affect any county facilities.

The Santa Clara County Transportation Agency would be involved in the design of the ballpark to ensure that the construction of the facilities do not impact existing bus repair and storage facilities. The City would be required to provide mitigation for any potential impacts to the Cerone bus maintenance facility. If the City proposes to relocate any or all of the bus facility, new replacement sites would need to be identified for relocation. The City will also be required to address these replacement sites in the future environmental document for the ballpark project.

The City will need to consult with the Santa Clara County Congestion Management Agency to determine if the ballpark would result in significant adverse impacts to Congestion Management Plan (CMP) roadway facilities. Future environmental review for the ballpark would require a regional level traffic analysis that utilizes the Congestion Management Plan methodology. Measures to reduce or avoid significant traffic impacts to a non-significant level will be required, if the ballpark traffic adversely affects CMP levels of service on CMP roadways.

The Santa Clara Valley Water District would be involved during the development of the stadium design, engineering and construction due to the proximity of the proposed facility to the Coyote Creek Flood Control Project. Consultation with the Water District will be necessary, particularly in the event that the construction of the stadium affects the implementation of the flood control improvements planned in this reach of the Coyote Creek Flood Control Project. Consultation with the Water District would also be



necessary if the future Tasman Drive bridge across Coyote Creek is widened to accommodate a six-lane Tasman Drive extension.

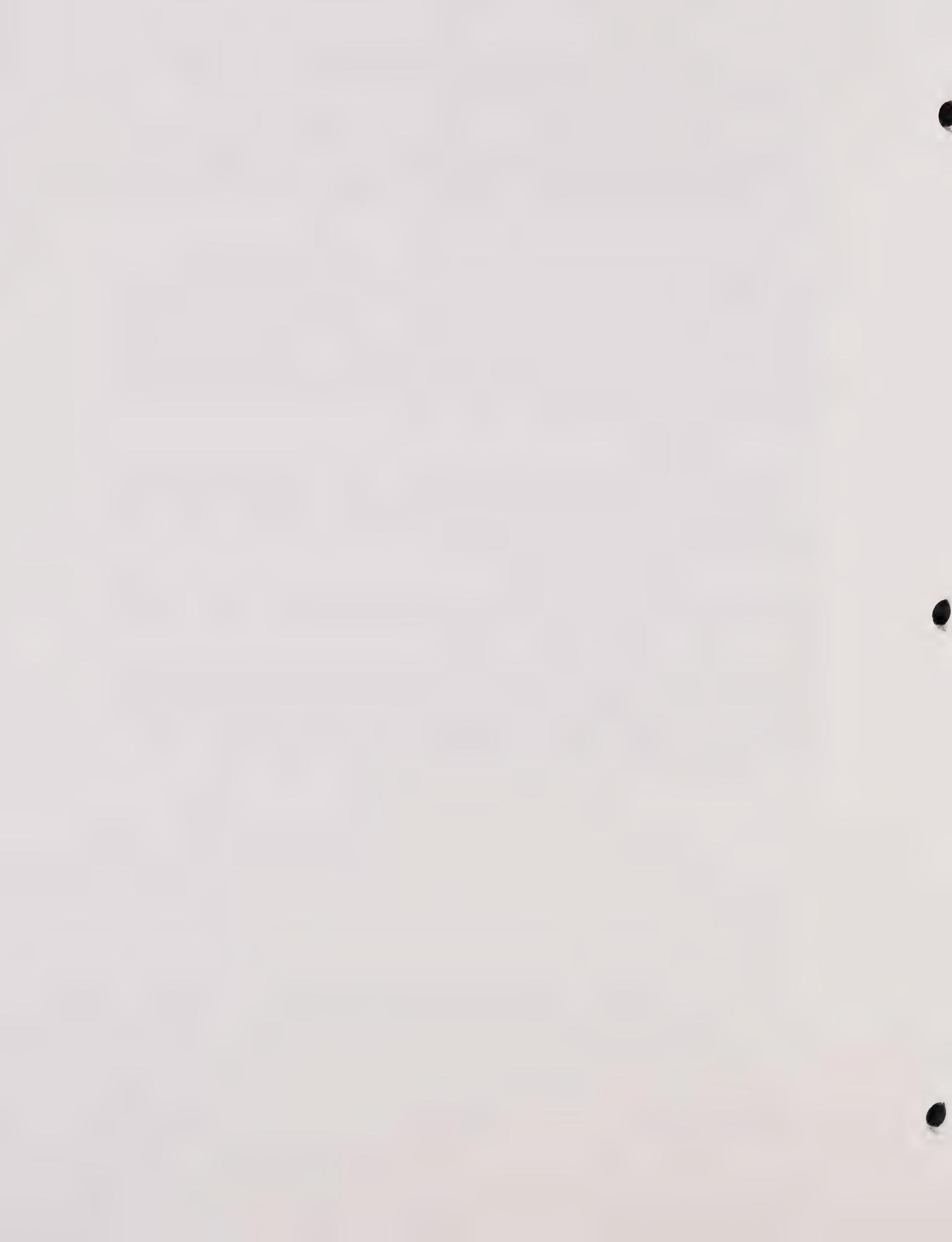
A permit is likely to be required from the Santa Clara Valley Water District for the installation of any de-watering systems on the ballpark site. In addition, the Water District would also be involved in the closure of the existing agricultural wells on the site. Consultation with the Water District would also be necessary, if the City choose to maintain the existing agricultural wells as a source of irrigation water for ballpark landscaping.

The City of San Jose would be the lead agency under CEQA responsible for the development of the baseball stadium. The City would be responsible for amending the Horizon 2000 General Plan High-Rise Policy to allow the maximum building height for public or quasi-public uses on properties in any area of the community with a Public/Quasi-Public designation to be up to 170 feet in height. In addition to taking the primary action of approving the project, the City would be responsible for acquiring real property, relocating any or all of the bus maintenance facility, vacating rights of way, issuing grading and building permits, and awarding contracts for design, engineering, and construction of the stadium.

The proposed stadium site is located within the Rincon de los Esteros Redevelopment Area. Coordination with the San Jose Redevelopment Agency will be necessary in order to ensure that the development of the proposed ballpark would not adversely affect redevelopment efforts in the Rincon de los Esteros Redevelopment Area. Adverse effects could result from increased traffic and noise levels.

Coordination with the City of Milpitas will be necessary to ensure that any proposed realignments of Tasman Drive or other transportation facilities that extend into Milpitas, will not adversely affect transportation conditions within Milpitas.

The City of Milpitas General Development Plan designates Industrial Park and Highway Service uses in the vicinity of the proposed stadium location. These uses appear to be compatible with the proposed ballpark. However, the City of San Jose should also coordinate with Milpitas to ensure that measures are implemented to reduce any potential impacts from the proposed ballpark on surrounding land uses in Milpitas.



SECTION VI

DISCUSSION OF ENVIRONMENTAL ISSUES

A. LAND USE

1. Existing Setting

Existing Land Uses on the Site

The existing land uses on the 195 acre study area site include agricultural and public/quasi-public land uses. The Santa Clara County Transit District Cerone Bus Maintenance Facility is located in the northern portion of the site, bounded by State Route 237 to the north and Zanker Road to the east (see Figure 5). A man-made excavated area is located along the southern border of the bus maintenance facility. This excavated area was used as a "borrow" site to provide fill to raise the building pad elevation out of the floodplain for the bus maintenance facility. Presently, the County is refilling the excavated area. Agricultural uses consisting of bell pepper crops are located on approximately 97 acres in the southern half of the site. In addition, a new cogeneration plant that provides energy for the Agnews Developmental Center, immediately south of the future Tasman Drive extension, is located in the southeastern corner of the property.

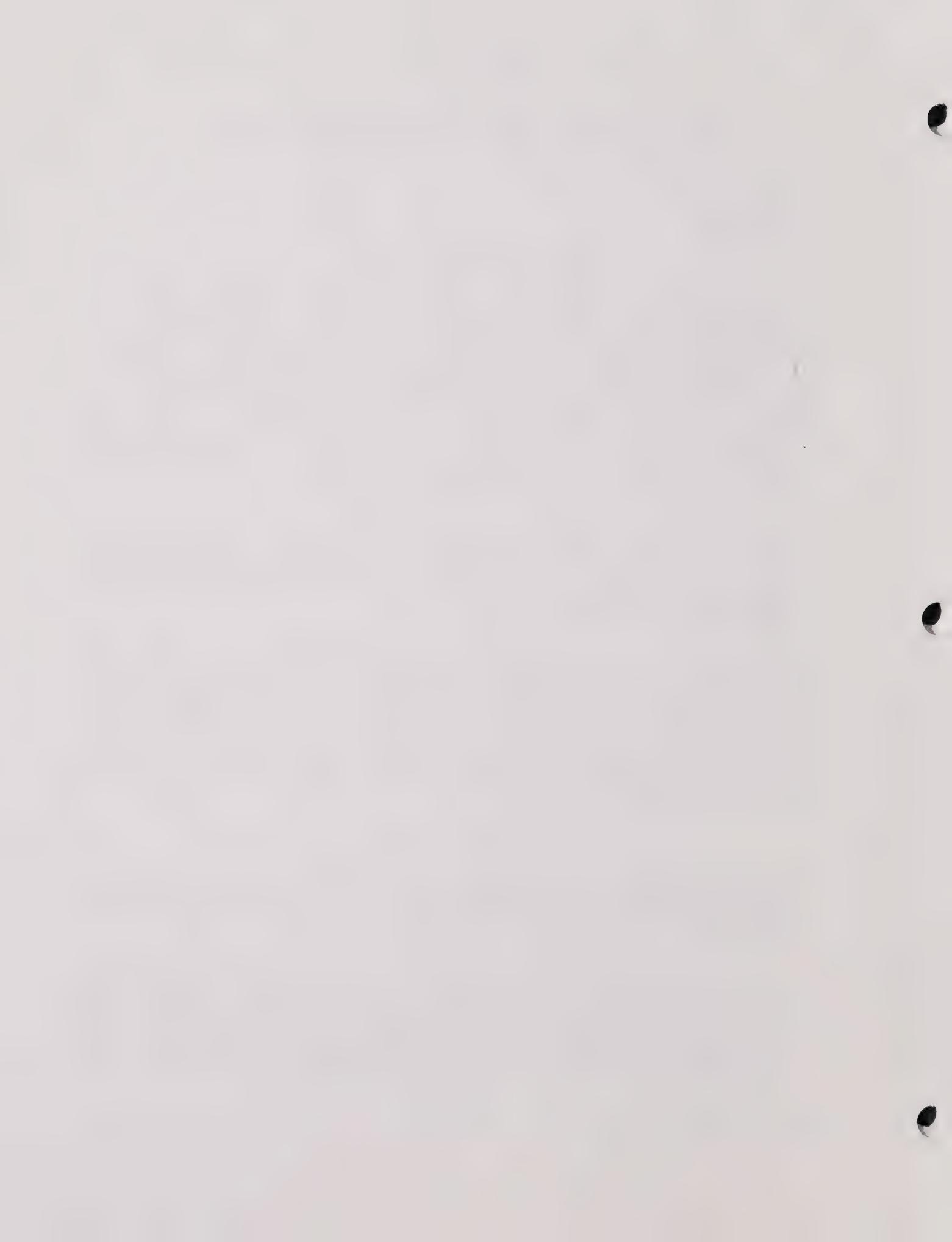
Coyote Creek extends along the eastern border of the project site. Two mitigation areas are proposed along the western bank of the creek as part of the Coyote Creek Flood Control Project (see Figure 5). In addition, the implementation of the flood control improvements will result in the future relocation of the abandoned buildings associated with the Coyote Creek Recreation Facility.

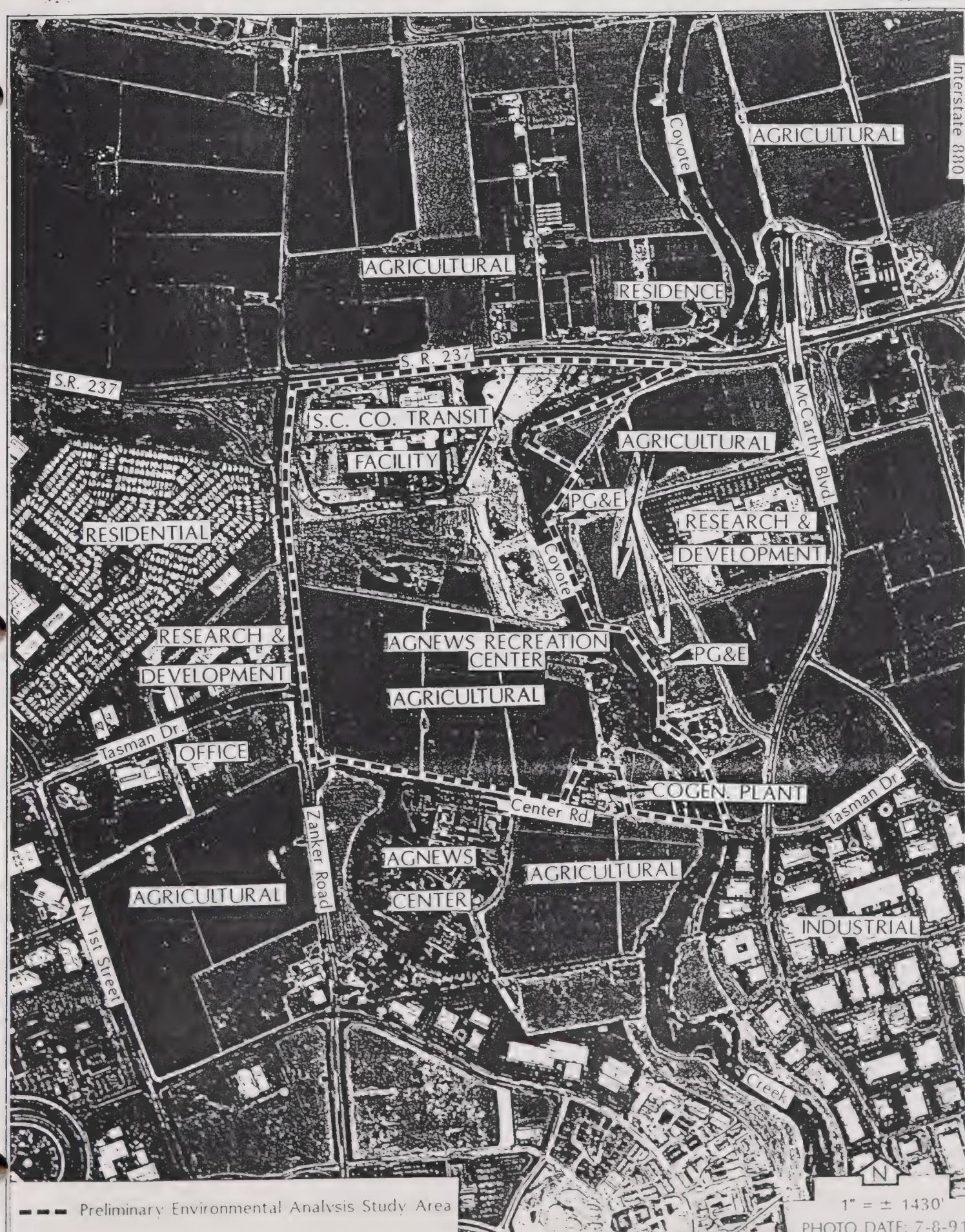
Utilities on the site include the Hetch-Hetchy aqueduct, two high pressure gas lines, and overhead electrical lines. The San Francisco Water Department maintains the Hetch-Hetchy aqueduct which traverses the southern half of the proposed stadium site in a southwest-northeast direction. The aqueduct is located within an 80 foot wide easement. The two high pressure gas lines consist of a 24-inch high pressure gas line located within a 15 foot easement across the northern third of the site, and a 10 to 12 inch gas line which extends along the eastern border of the site to connect to the Cogeneration Plant in the southeastern corner of the property.

Surrounding Land Uses

The proposed ballpark study area is in an area with a variety of land uses including research and development/office, agricultural activities, a mobile home park, a hotel, Coyote Creek and drainage facilities, and transportation facilities (see Figure 5 on the following page).

Land uses on the north side of State Route 237, between Zanker Road and Coyote Creek, include agricultural-related uses. The construction of the State Route 237 Upgrade project would require the removal of two residences associated with the agricultural activities occurring between Zanker Road and Coyote Creek. In addition, a fruit and vegetable stand owned by the City of San Jose, north of Route 237 and east of Zanker Road would also be relocated.



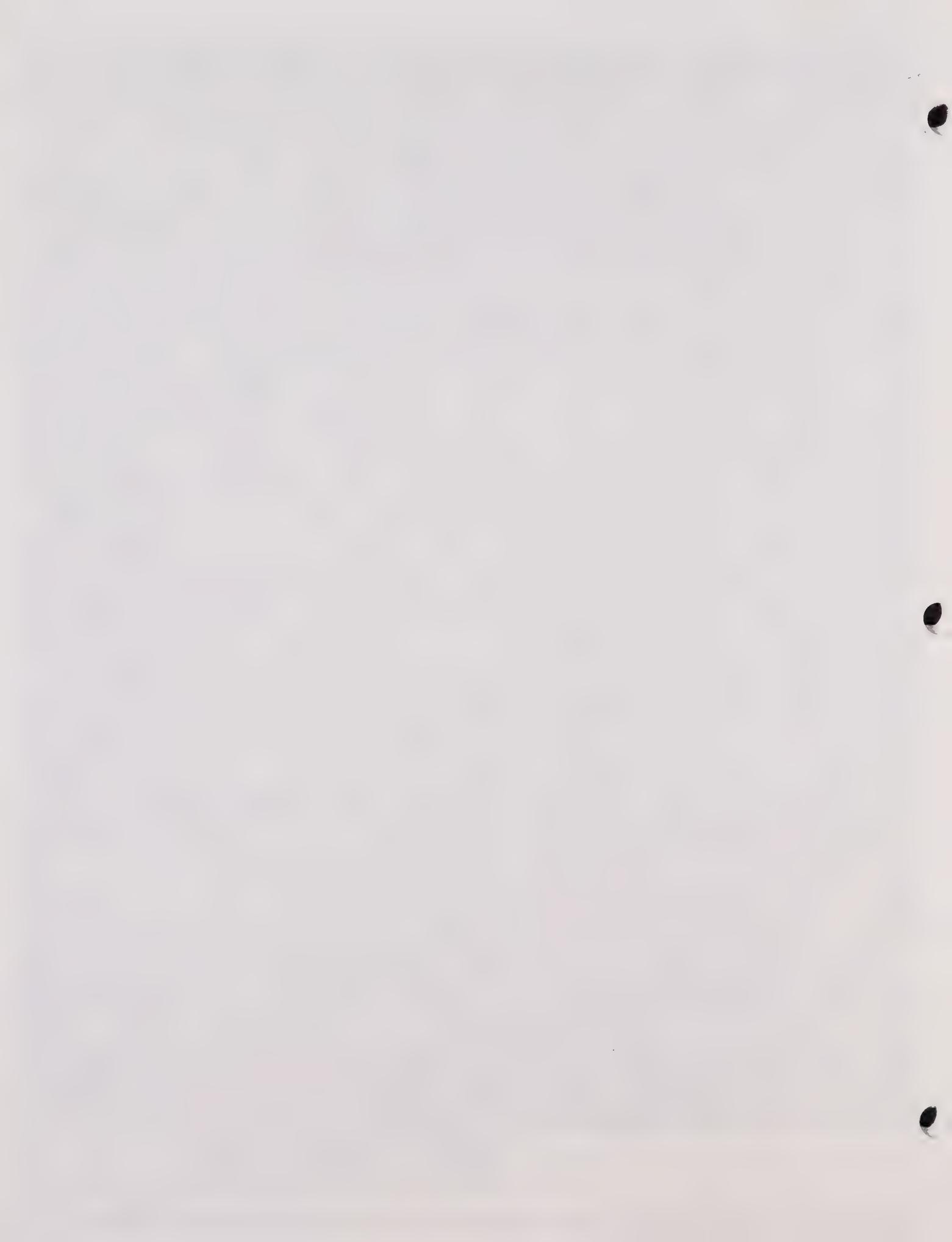


EXISTING LAND USES

1" = ± 1430'

PHOTO DATE: 7-8-91

FIGURE 5



The San Jose/Santa Clara Water Pollution Control Plant is located 1.5 miles northwest of the proposed stadium site, to the north of Route 237. The WPCP sludge drying beds are located approximately 1.0 miles north of the proposed ballpark site.

Land uses located to the east of Coyote Creek include agricultural activities, a hotel, a research and development campus, and several single family residences, that appear to be related to the agricultural uses. A PG&E substation is located to the northeast, just west of the Route 237/I-880 interchange.

The Agnews Developmental Center (East Campus) is located on the south side of the proposed ballpark site, at Zanker Road and Center Road. This facility is operated by the California Department of Health Services. Agricultural activities are present on the State property, immediately east of the Developmental Center facility.

The Mobile Home Park West complex is located immediately west of the site, on the west side of Zanker Road. Access to this mobile home park is provided from North First Street. Research and Development/office uses are located to the south of the mobile home park. A future commercial establishment is planned for the southwestern corner of the intersection of Zanker Road and Tasman Drive. In addition, future high density residential development may occur to the south of the planned commercial uses, west of the Agnews Developmental Center.²

General Plan and Zoning Designations

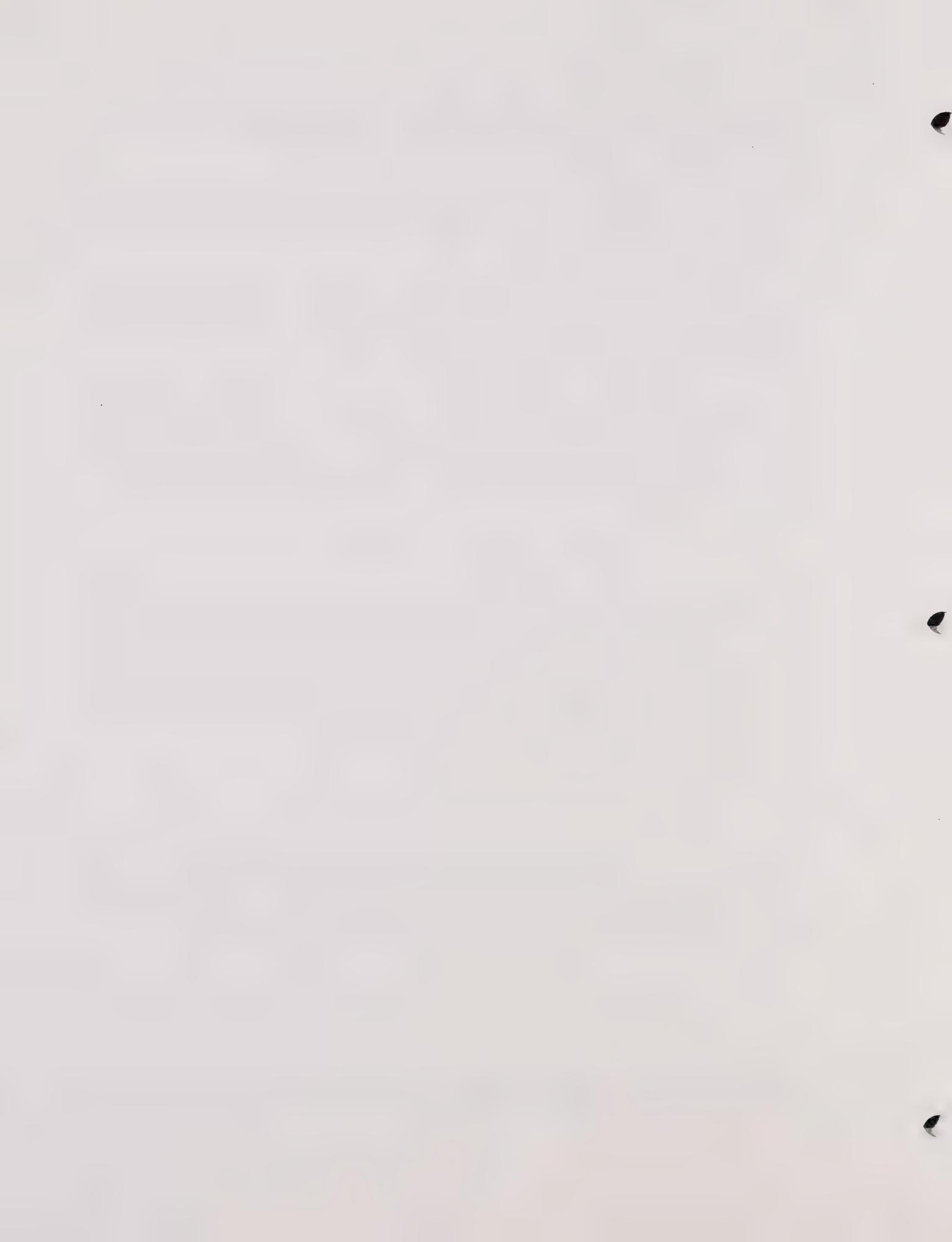
The 195 acre site is designated Public/Quasi-Public on the City of San Jose Horizon 2000 General Plan Land Use/Transportation Diagram. Presently the site is zoned for Industrial uses. The proposed location of the ballpark stadium would be consistent with the General Plan and Zoning Ordinance designations. However, as previously described in Section V, the construction of a stadium at this location would require an amendment to the City of San Jose Horizon 2000 General Plan High-Rise Policy to allow the maximum building height for public or quasi-public uses on properties in any area of the community with a Public/Quasi-Public designation to be up to 170 feet in height.

2. Potential Land Use Impacts

Land Use Impacts

The direct land use impacts of the proposed project would be the replacement of existing uses on the site with a ballpark facility. Specifically, there would be the loss of 97 acres of agricultural land, development of vacant land, and the relocation of a portion (or all) of the bus maintenance facility. Note that as development of the project's plans occur, it may be possible to avoid all or most of the existing bus maintenance facility.

² A General Plan amendment is being processed, in the City of San Jose, to allow a change in the land use designation to High Density Residential (12-25 du/ac).



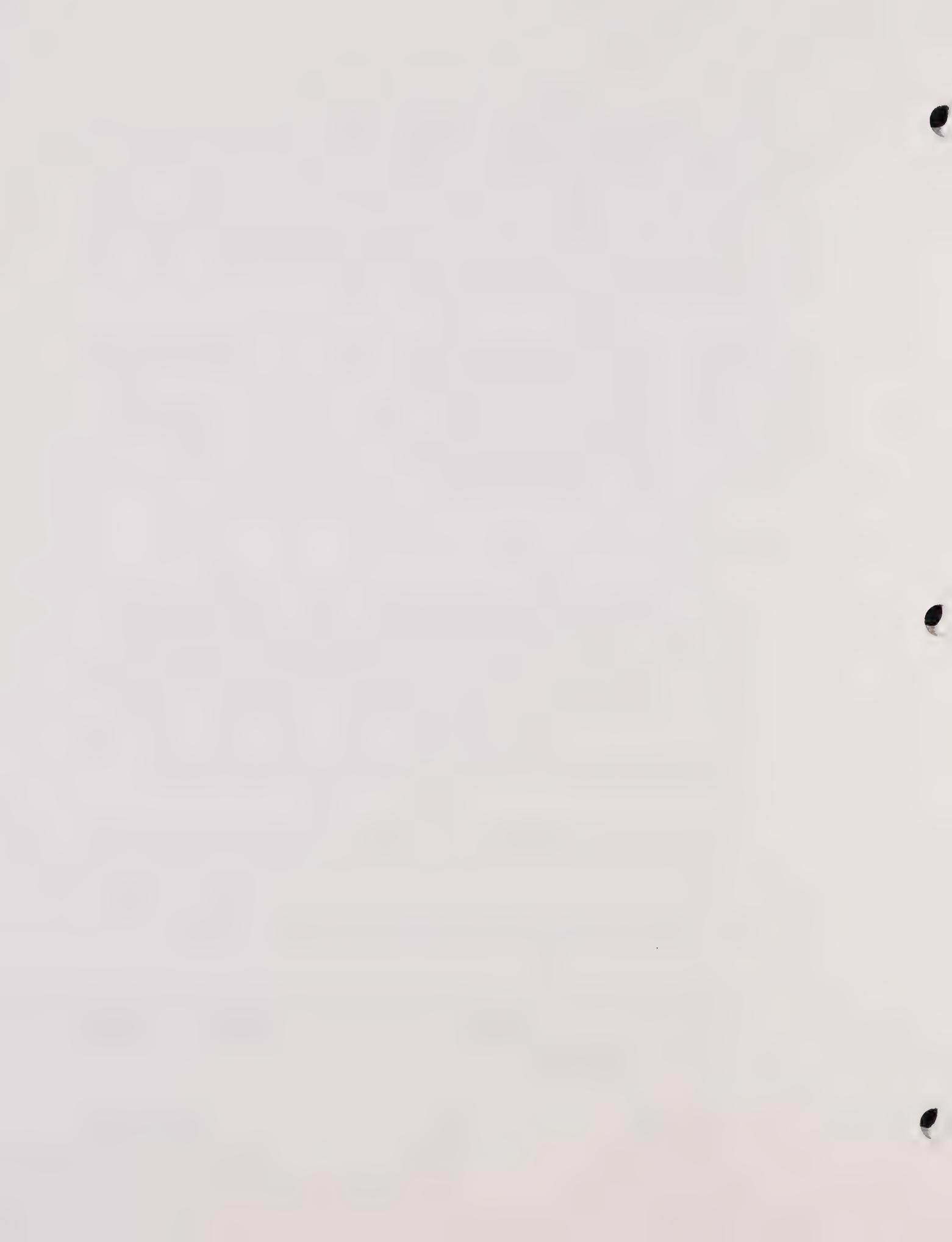
Neighborhood Impacts

The ballpark could have potential land use compatibility impact resulting from crowd noise and loud speakers affecting nearby residential uses. Similarly, ballpark generated traffic would adversely affect local and regional traffic circulation and could result in some parking intrusion into the adjacent Agnews Developmental Center and surrounding R&D and office uses during peak events. Parking in these areas could result in possible littering and damage to landscaping due to pedestrian traffic. Parking and neighborhood intrusion could also occur in the future residential area proposed in the southwestern corner of the Tasman Drive/Zanker Road intersection. The mobile home park is not anticipated to be affected by parking intrusion, since access to this area is provided from North First Street and is remote from the ballpark site.

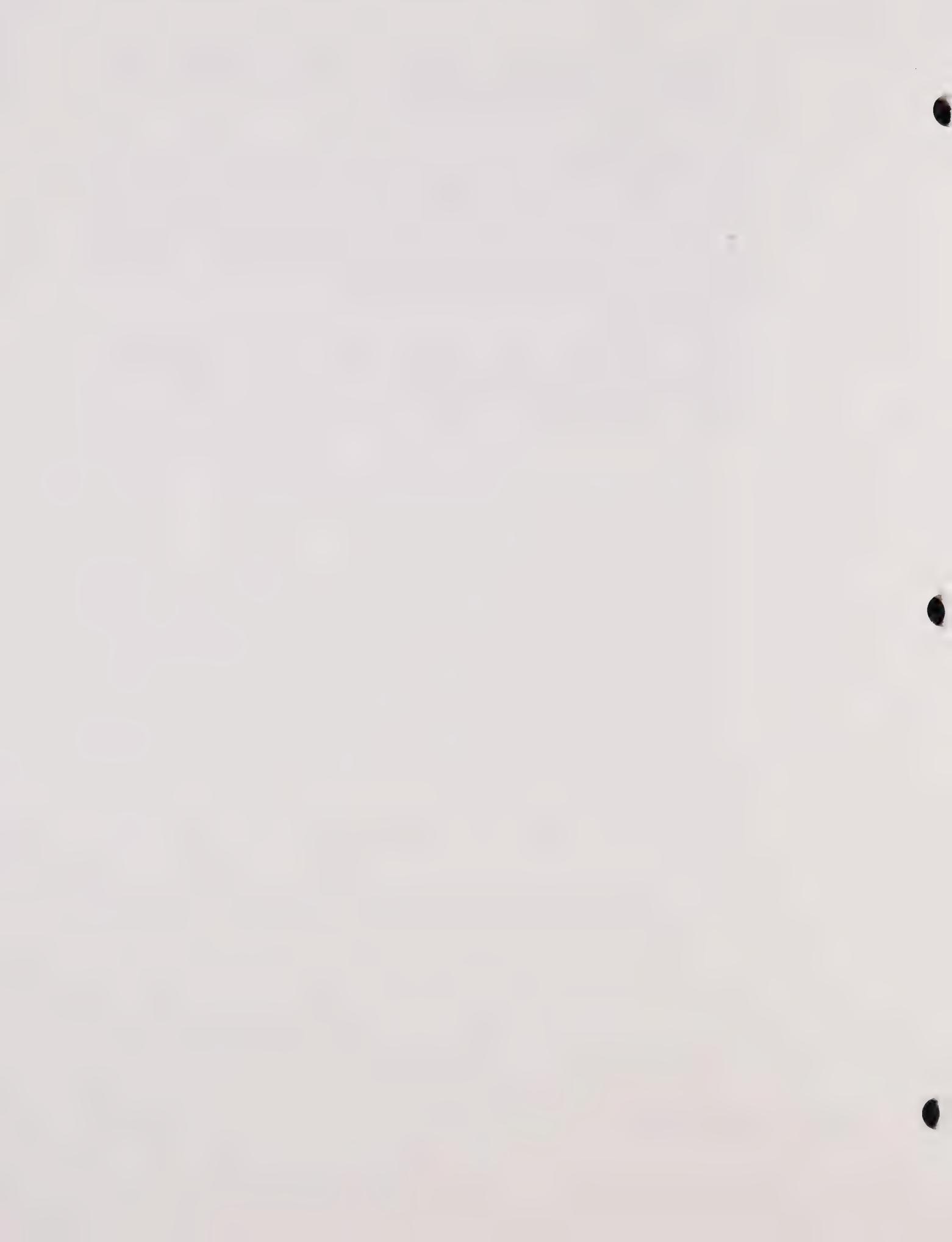
The ballpark would primarily affect the Agnews Developmental Center, the mobile home park, and future residential areas along Zanker Road. These land uses could experience effects on their "quality of life" prior to, during, and after ballpark events. The impacts resulting from the patrons at this site would include increased vehicular noise, as well as noise from loud conversations and car stereos. During some events, tailgate parties that generate noise and activities which are also intrusive to neighborhoods and to the adjacent businesses could occur. Late evening departures from a ballpark event would result in neighborhood intrusive noise and activity associated with pedestrian traffic, slamming of car doors, and vehicular noises as vehicles depart from the project area.

3. Potential Mitigation Measures for Land Use Impacts

- Locate the ballpark facility as far to the north and east as feasible to reduce potential neighborhood impacts and temporary construction-related disturbance to the mobile home park, Agnews Developmental Center, and future residential development in the project vicinity. While this mitigation would avoid potential land use compatibility impacts, moving the stadium to the easterly edge of the site may not be compatible with the riparian corridor and mitigation areas. Therefore, locating the stadium in the center of the site may be the best possible compromise.
- The development of the ballpark should minimize the relocation of the bus maintenance facility. Relocation of these facilities would likely be very costly and time consuming.
- Impacts of loud speaker noise intrusion upon nearby residential uses can be reduced by design and orientation of the public address system as described in the noise section.
- Traffic impacts on surrounding land uses can be somewhat mitigated by changing start times of the baseball games, roadway improvements, increased usage of public transportation, and modification of travel behavior.
- The ballpark structure can be oriented to reduce noise impacts to the mobile home park and Agnews by locating the structure to the northeast, and by directing noise from public address speakers away from these sensitive receptors. If warranted, sound walls could be constructed around the perimeter of nearby residential land uses to buffer noise levels.



- Ballpark light standards could be constructed as part of the building. Lighting could then, be directed into the interior of the facility, thereby reducing the effects of light and glare on the surrounding land uses.
- Extensive landscaping around the perimeter of the ballpark site, particularly along Center Road and Zanker Road, would provide a visual buffer that separates the ballpark from Agnews and the mobile home park. A wall or fence along the southern border of the overflow parking lot would further discourage ballpark patrons from littering and trespassing on the Agnews property. A wall would also provide some noise attenuation to reduce the vehicular noise levels, as well as the noise from car stereos, tailgate parties, and other such activities. A wall along Center Road would visually separate the ballpark site from Agnews, thereby discouraging parking at the State facility.
- Additional measures to reduce parking intrusion on the State property could include: 1) the placement of "No Trespassing" signs, 2) police officers patrolling the overflow parking lot and Agnews facility, and 3) the implementation of an extensive parking and traffic operations/management program.



B. LOSS OF AGRICULTURAL LAND

1. Existing Setting

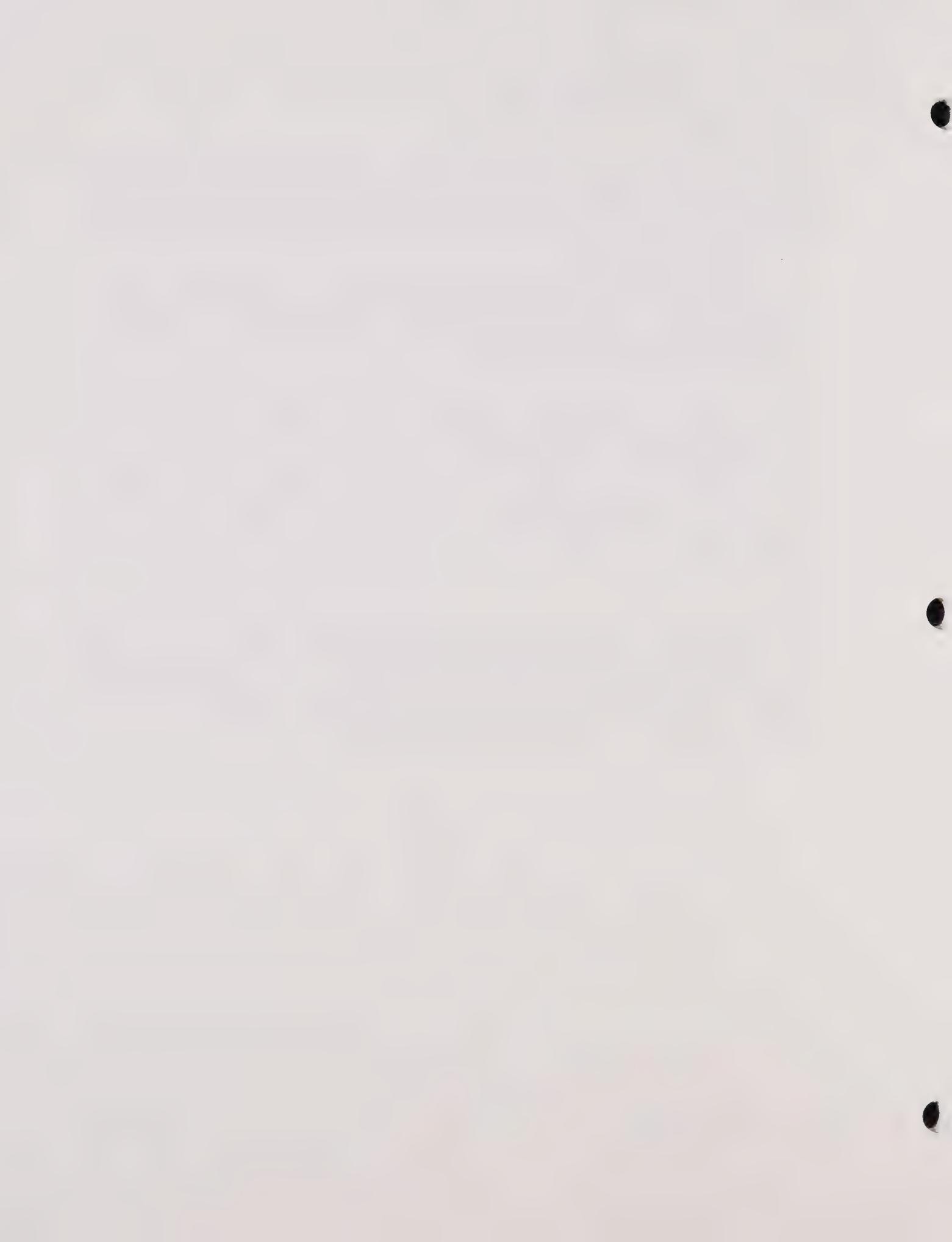
The proposed ballpark site is located in the northern Santa Clara Valley. Soils in the northern Santa Clara Valley are derived from alluvial (water deposited) material that range from gravels to heavy clay. The area has been used extensively by agricultural producers for orchards and row crops, but increasingly supports urban development including homes, businesses, and light industry.

The southern portion of the 195 acre site is designated by the Soil Conservation Service as prime farmlands. This area consists of approximately 97 acres and the majority of the land is farmed with row crop bell peppers. Prime farmlands are defined as lands with the best combination of physical and chemical features that are able to sustain long-term production of agricultural crops.

According to the U.S. Department of Agriculture, Soil Conservation Service Soils of Santa Clara County Maps, four agricultural soils occur on the entire project site. The four soils generally lay in broad, northwesterly-trending bands, roughly parallel to Coyote Creek. The Campbell silty clay loam lies on the westerly side of the site and supports irrigated row crops. The next unit to the east is the Pacneco Loam which also supports irrigated row crops. The south-central portion of the site contains Cropley clay loam which supports irrigated row crops and orchards. The remainder of the site contains Maho loam which also supports irrigated row crops, as well as other crops.

2. Potential Impacts

The construction of the baseball stadium would result in the unavoidable loss of 97 acres of prime farmlands. The stadium would require the removal of the existing row crops, and would decrease the area designated for agricultural uses. The construction of the stadium at this location would contribute to the expansion of the area developed with urban uses. The loss of the 97 acres of prime farmlands is a significant environmental impact which cannot be mitigated to a non-significant level.



C. BIOLOGICAL RESOURCES

1. Existing Setting

Overview

The eastern boundary of the ballpark site is adjacent to the riparian corridor of Coyote Creek. Coyote Creek flows northward from the Diablo Range and Santa Cruz Mountains for approximately 75 miles to San Francisco Bay. Near the proposed stadium site, Coyote Creek supports *Great Valley Mixed Riparian Forest* vegetation. The remainder of the site is bordered by urban and agricultural development.

The riparian vegetation along Coyote Creek forms one of the last remaining riparian corridors in the Santa Clara Valley. Riparian habitats provide water, cover, temperature moderation, food supply and breeding areas for wildlife and fish populations. Riparian systems are of critical importance for resident and migratory waterfowl, amphibians, fish, and mammals. The Coyote Creek corridor also serves as an important migrational corridor for neo-tropical bird species.³

Over the last two centuries, alterations and urban development have drastically reduced riparian vegetation in the Santa Clara Valley. The floodplain and high terraces of the river have been converted into orchards, farmland, and more recently, into urban areas. Other human activities that have impacted Coyote Creek include the dumping of debris in the channel, grading along the top of banks for access roads, and the introduction of non-native trees.

Special Plants and Animals (Including Threatened and Endangered Species)

"Special Plants and Animals" is a broad term used to refer to all taxa (ie. species and subspecies) of concern to the California Natural Diversity Data Base (CNDDB), regardless of their legal or protection status. Special Plants and Animals include taxa listed under State and Federal Endangered Species Acts and those listed as California Department of Fish and Game (CDFG) Species of Special Concern. Species of Special Concern are either of limited distribution or the extent of their habitats has been substantially reduced, such that threat to their populations may be imminent. Species listed by the CNDDB are included in Table 1 along with other Special Plants and Animals associated with riparian areas and salt marsh areas in Santa Clara County that may be of concern to the CDG and U.S. Fish and Wildlife Service (FWS), if a stadium is constructed at this site.

Habitat suitable for burrowing owl, a Species of Special Concern, is present on the proposed project site. Black-shouldered kite and golden eagle have also been reported in the general vicinity, although none were observed during field visits to the site in October, 1991. However, no rare, threatened or endangered plant species were identified on the site.⁴

³ Mike Rigney, Director of the Coyote Creek Riparian Station, telephone communication, 1991.

⁴ No rare, threatened, or endangered species were observed during vegetation and wildlife surveys conducted for the San Jose Arena Facility - Site C Environmental Impact Report, August, 1987. Recent surveys of the site conducted in October, 1991, did not identify the presence of such species.

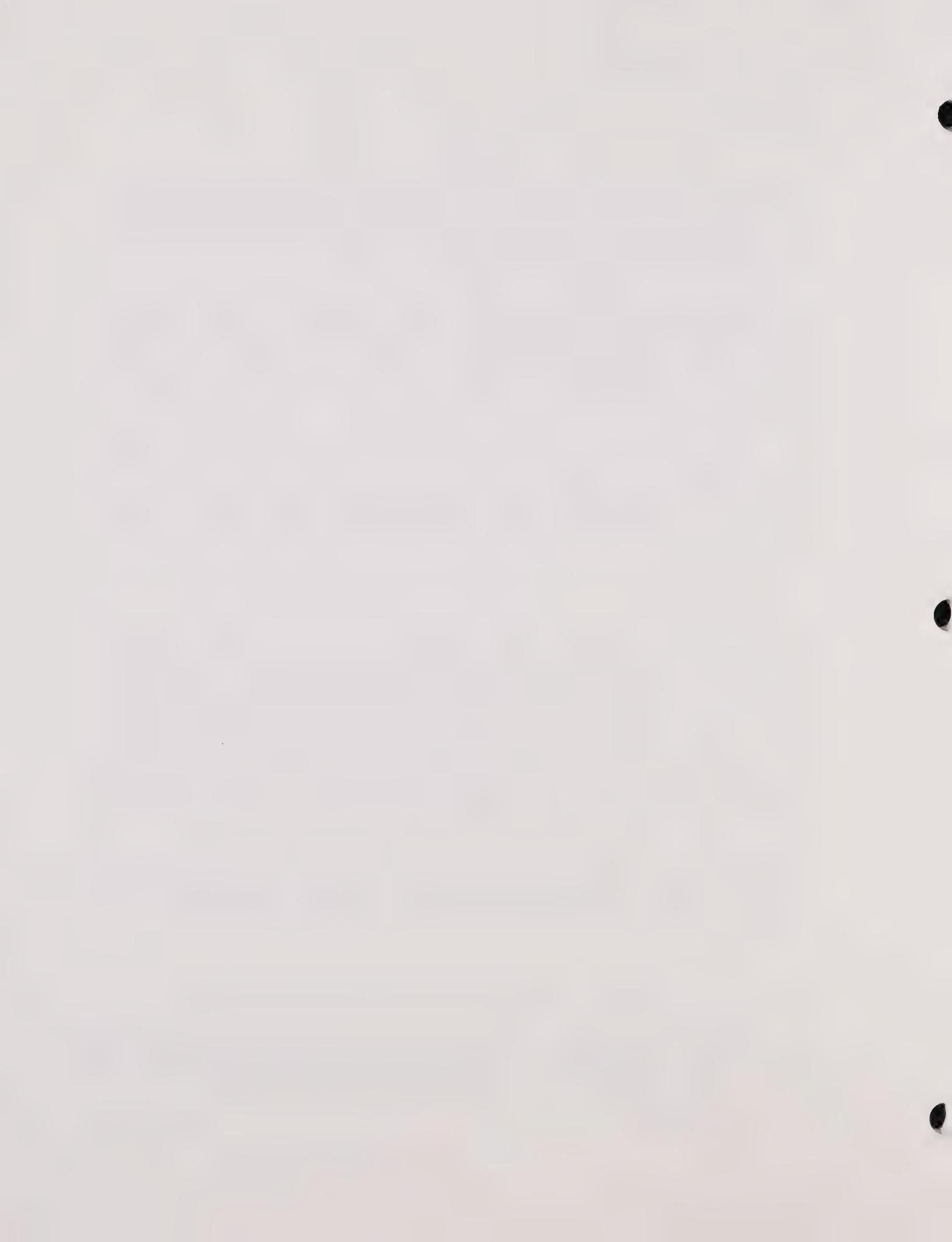


TABLE 1
SPECIAL PLANT AND ANIMAL SPECIES IN THE PROJECT VICINITY

SPECIES		STATUS		
SCIENTIFIC NAME	COMMON NAME	FEDERAL	STATE	HABITAT TYPE
* <i>Agelaius tricolor</i>	tricolored blackbird	Category 2	None	Open fields and grassland
<i>Ambystoma tigrinum californiense</i>	California tiger salamander	Category 2	Special Concern	Grassland
<i>Aquila chrysaetos</i>	golden eagle	None	Special Concern	Woodland and grassland
<i>Asio flammeus</i>	short-eared owl	None	Special Concern	Marsh and grassland
* <i>Athene cunicularia</i>	burrowing owl	None	Special Concern	Grassland and open areas
* <i>Charadrius alexandrinus nivosus</i>	snowy plover	Category 2	Special Concern	Saltmarsh
* <i>Elanus caeruleus</i>	black-shouldered kite	None	None	Woodland and grassland
<i>Eumops perotis californicus</i>	California mastiff bat	Category 2	Special Concern	Grassland, open areas, woodlands
* <i>Geothlypis trichas sinuosa</i>	saltmarsh yellowthroat	Category 2	None	Marsh and riparian areas
<i>Ischnura gemina</i>	San Francisco forktail damselfly	Category 2	None	Ponds, marsh, and riparian areas
<i>Laterallus jamaicensis coturniculus</i>	California black rail	Category 1	Threatened	Saltmarsh
<i>Plecotus townsendii townsendii</i>	Townsend's Western big-eared bat	Category 2	Special Concern	Caves, abandoned bldgs., desert scrub
* <i>Rallus longirostris obsoletus</i>	California clapper rail	Endangered	Endangered	Saltmarsh/mud slough

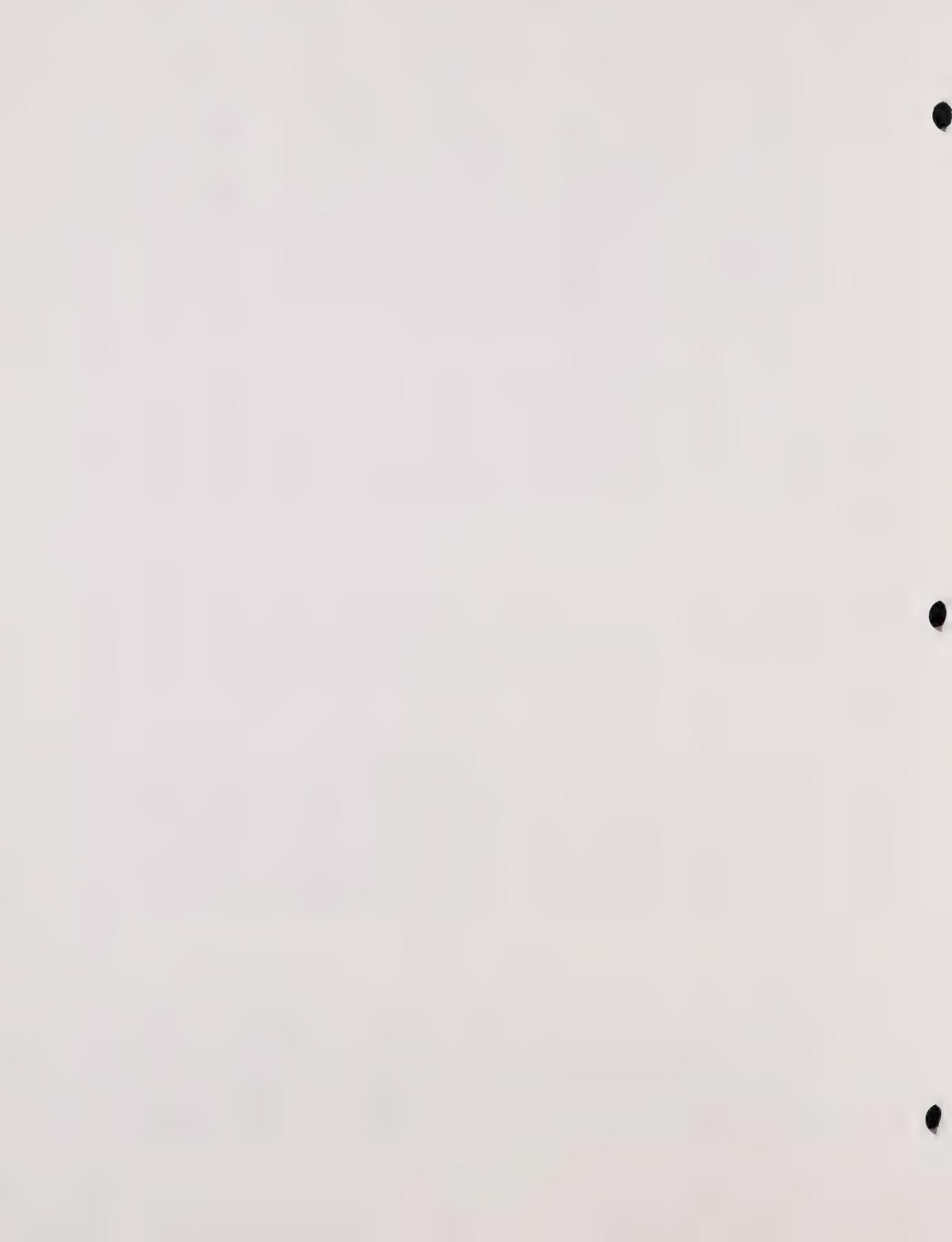


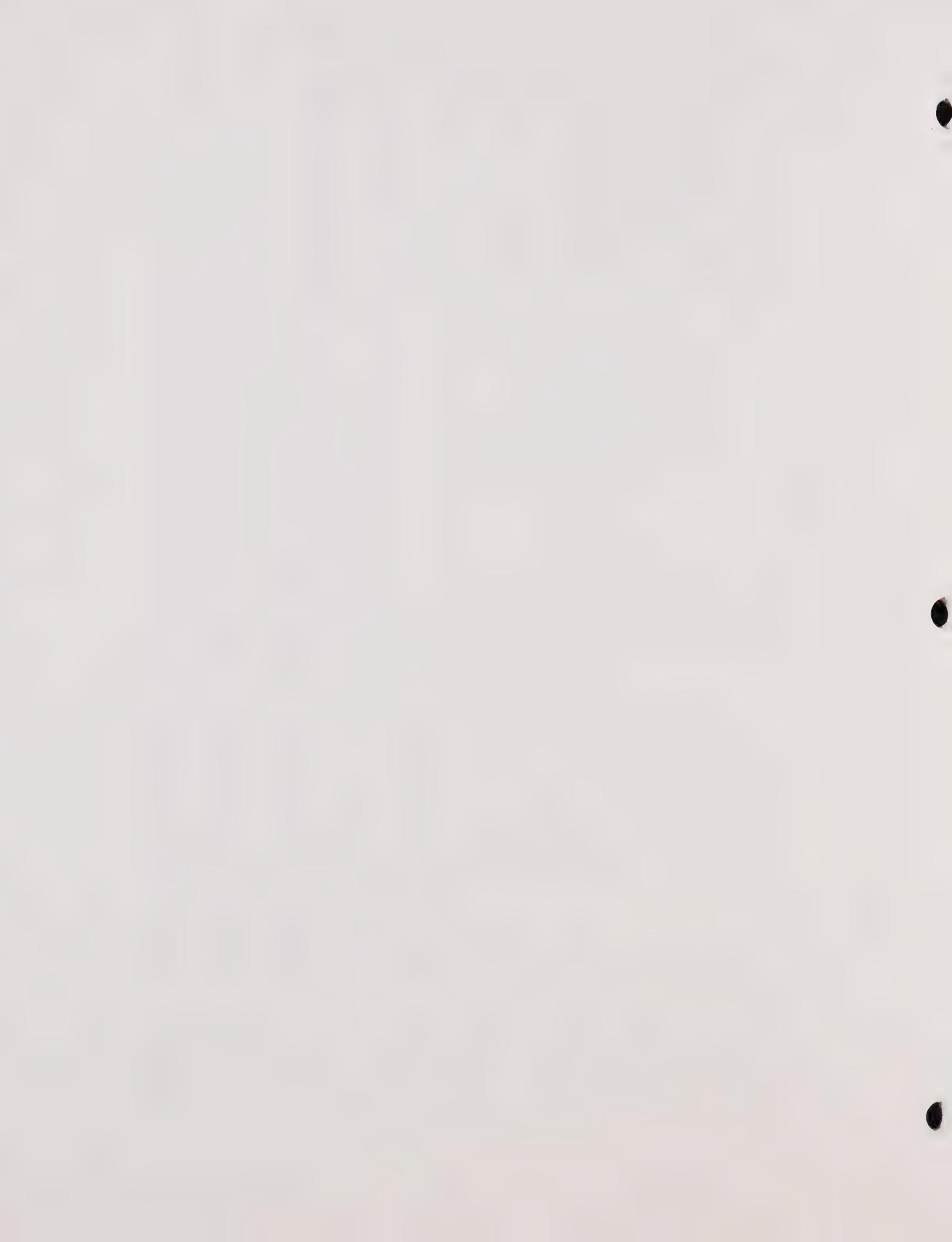
TABLE 1 (cont.)
SPECIAL STATUS PLANT AND ANIMAL SPECIES IN THE PROJECT VICINITY

SPECIES		STATUS		
SCIENTIFIC NAME	COMMON NAME	FEDERAL	STATE	HABITAT TYPE
<i>Rana aurora draytoni</i>	California red-legged frog	Category 2	Special Concern	Ponds, permanent water
* <i>Reithrodontomys raviventris</i>	salt marsh harvest mouse	Endangered	Endangered	Saltmarsh and brackish marsh
* <i>Sorex vagrans halicoetes</i>	saltmarsh wandering shrew	Category 1	Special Concern	Marsh
* <i>Tryonia imitator</i>	California brackish water snail	Category 2	None	Salt pond
* <i>Cordylanthus maritimus</i> <i>ssp palustris</i>	Pt. Reyes birds-beak	Category 2	None	Saltmarsh

* Listed by the CNDDB for the Milpitas Quadrangle (October, 1991)

- | | |
|-----------------|--|
| Category 1. | Comprises species for which the USFWS currently has on file substantial information on biological vulnerability and threat(s) to support listing the species as an Endangered or Threatened species. |
| Category 2. | Comprises species for which information now in possession of the USFWS indicates that proposing to list the species as an Endangered or Threatened species is possibly appropriate, but for which substantial data on biological vulnerability and threat(s) are not currently known or on file to support proposed rules. |
| Special Concern | Comprises animal species listed by the California Department of Fish and Game as "Species of Special Concern". Listing of bird species may be specific for breeding or wintering rather than all occurrences. |

SOURCE: CNDDB, 1991; CNPS Inventory of Rare and Endangered Vascular Plants of California, 1988.



Wetlands and Riparian Areas

The U.S. Fish and Wildlife Service National Wetlands Inventory map for the Milpitas Quadrangle shows several wetland areas within the project site. One area at the northern end of the County Transit Facility includes a pond and drainage channel that was created by the County as a mitigation site when the Transit Facility was built. This area is not proposed to be disturbed by the project. The second area mapped as wetland is a borrow pit near the center of the site on County property. Based on consultation with the U.S. Army Corps of Engineers (Rob Lawrence, pers. comm.), this site would not meet the requirements of a jurisdictional wetland.⁵

Coyote Creek lies east of the project site and would not be physically altered by the project. The reach of Coyote Creek adjacent to the project area is currently included in the Santa Clara Valley Water District (SCVWD) and the U.S. Army Corps of Engineers flood control project. The project area lies west of the areas designated in the Coyote Creek Flood Control Project as Reach 3 and Mitigation Areas 3 and 4. Preliminary plans for the proposed mitigation areas have been approved by agencies including the U.S. Army Corps of Engineers, CDFG, and FWS. Detailed plans have not been prepared or approved for Reach 3 and Mitigation Areas 3 and 4. These plans will be subject to review, comment and/or approval by U.S. Army Corps of Engineers, CDFG, USFWS, Environmental Protection Agency, and the Regional Water Quality Control Board as part of conditions of final permit approval.

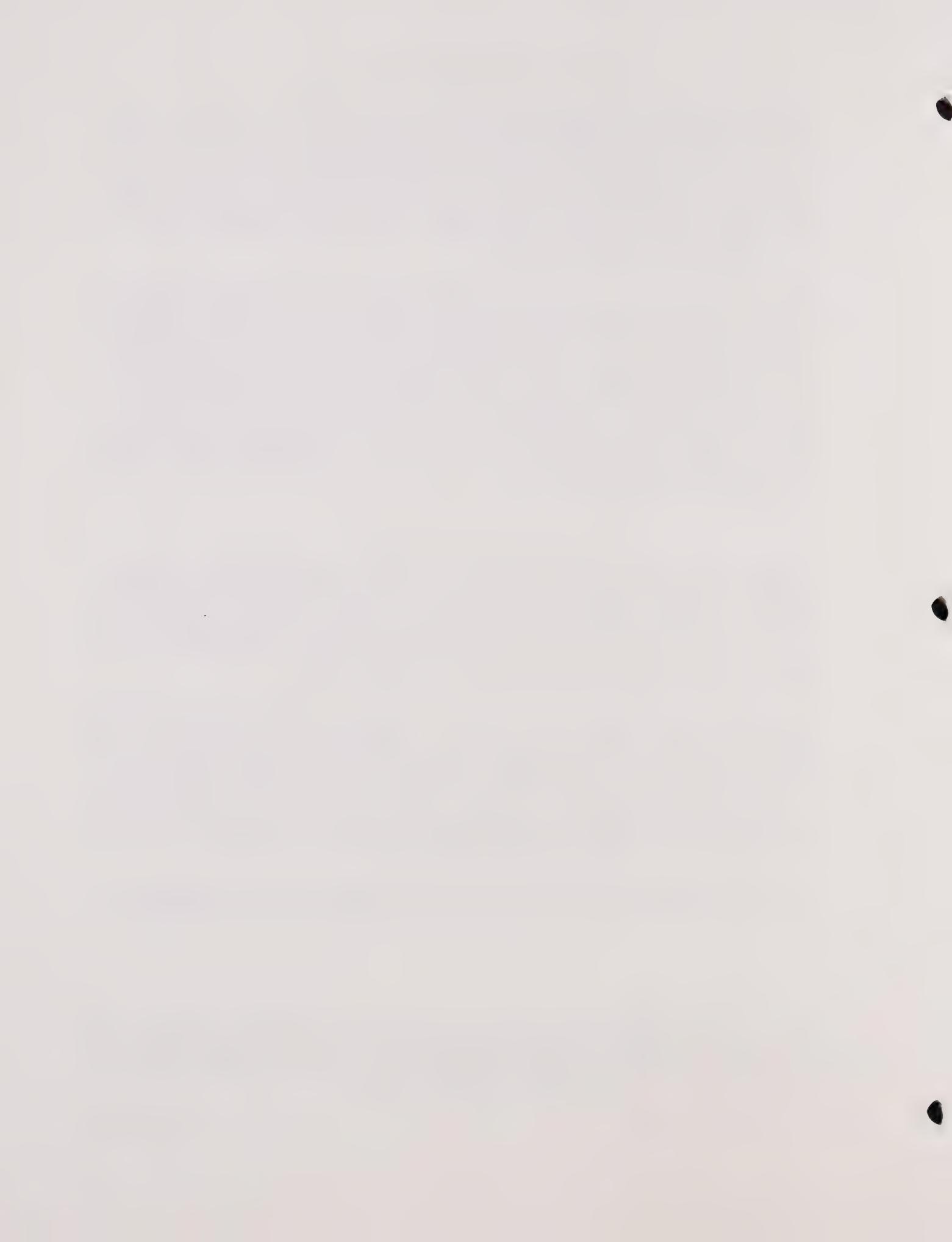
Cropland and Developed Habitat

Vegetation and wildlife habitats in the study area consist of cropland and developed areas. These areas support volunteer herbaceous species (i.e., weeds) and some landscape trees. Cropland within the project area is located in the southern portion of the project area. Cropland in this area is used for row crops, including peppers. Volunteer plant species noted along the edge of the field in October, included mustards, cheeseweed, bristly ox-tongue, smilo, bermuda grass, field bindweed, and prickly lettuce.

Landscaped and developed areas are adjacent to the bus maintenance facility and the abandoned buildings once used by Agnews. Landscaping in the vicinity of the bus maintenance facility consists of planted trees and shrubs. Understory plants are not present under the trees. Older plantings are present in the area occupied by the abandoned buildings, along Coyote Creek. Plantings in this area include prickly pear, cork oak, walnut, and pines. Shrubs, including nicotiana and coyote brush have volunteer between the buildings. The herbaceous understory primarily consists of non-native annual plants including mustards, poison hemlock, and bermuda grass.

Some of the landscape trees in the study area may be ordinance sized. "Ordinance trees" are defined as trees over 18 inches in diameter at a height of two feet above ground by

⁵ Per Section 328.3: Definitions in the Clean Water Act, water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand or gravel are generally not considered to be Waters of the United States and would not fall under the jurisdiction of the U.S. Army Corps of Engineers, assuming they are not abandoned.



the City of San Jose Civil Code. There are no heritage trees in the study area, as identified on the City of San Jose's Heritage Tree List⁶.

2. Potential Impacts

The following impacts are likely to occur with the construction of a ballpark stadium on a portion of the 195 acre site.

Special Plants and Animals

The potential loss of burrowing owl habitat could occur with the development of the site. Potential impacts to other species listed in Table 1 could occur as the result of the introduction of runoff from parking lots into Coyote Creek and salt marsh areas downstream of the project. It is recommended that future detailed vegetation and wildlife habitat surveys be performed to address the presence of the species listed in Table 1, and possibly others, at the site.

Wetlands and Riparian Impacts

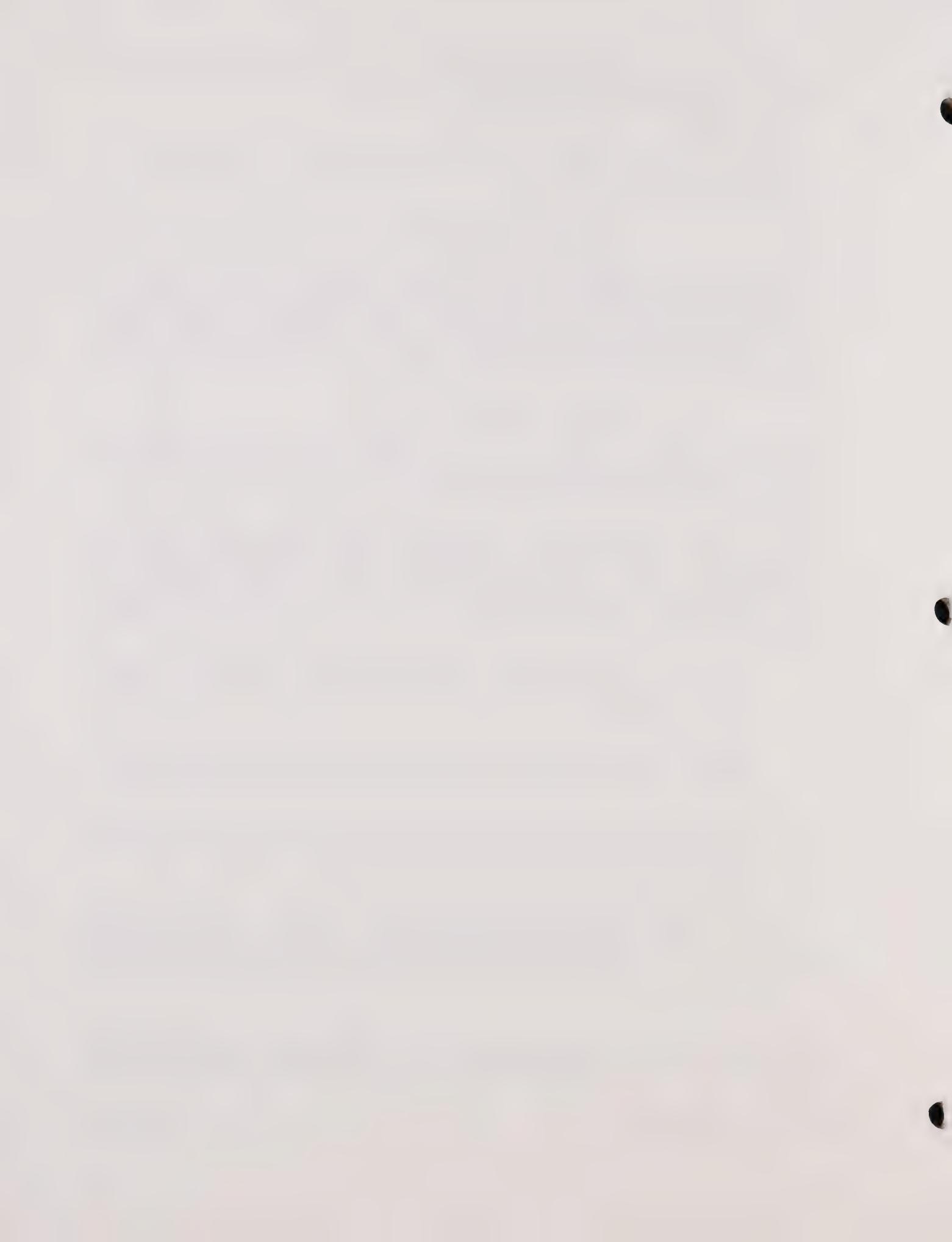
The ballpark facility and parking lots are not anticipated to be constructed in or near the mitigation pond and drainage area on the south side of State Route 237. Therefore, the ballpark is not expected to impact this mitigation area.

Depending upon the project design, the construction of the ballpark facility and parking lots adjacent to Coyote Creek could significantly impact the riparian corridor and mitigation areas 3 and 4. The Water District has identified several issues and concerns that may be raised by various regulatory agencies, if a stadium is constructed adjacent to the riparian corridor and mitigation areas 3 and 4 (Cindy Danis, SCVWD, pers.comm.). These issues include:

1. The potential need for a buffer between certain types of development and the mitigation areas. Noise and lights associated with stadium activities may make a buffer area desirable.
2. The mitigation areas could be subject to human disturbance by large numbers of people. Additional controls on public access, such as security fencing, may be needed.
3. The potential introduction of additional grease, oil and other non-point sources of pollution from parking lots into the Coyote Creek drainage may degrade the existing channel and/or mitigation areas.

The Coyote Creek Riparian Station (CCRS) is a non-profit private organization that will assist the SCVWD with monitoring Mitigation Areas 3 and 4. The CCRS, located approximately 1.5 miles north of the proposed stadium, has banded more than 145 bird species and various mammals, amphibians and reptiles within their current 145 acre study

⁶ The San Jose City Council adopted a Heritage Tree List to officially recognize and protect trees on private and public property that are of special significance because of their history, girth, height, species, or unique quality.



area adjacent to Coyote Creek. The CCRS also has identified noise, lights, and human intrusions as potential impacts on Mitigation Areas 3 and 4 (Mike Rigney, CCRS).

The entire project site has been altered by previous development and no longer supports natural communities. However, significant impacts to wildlife may occur due to the proximity of ballpark site to the migrational corridor and proposed mitigation areas associated with nearby Coyote Creek.

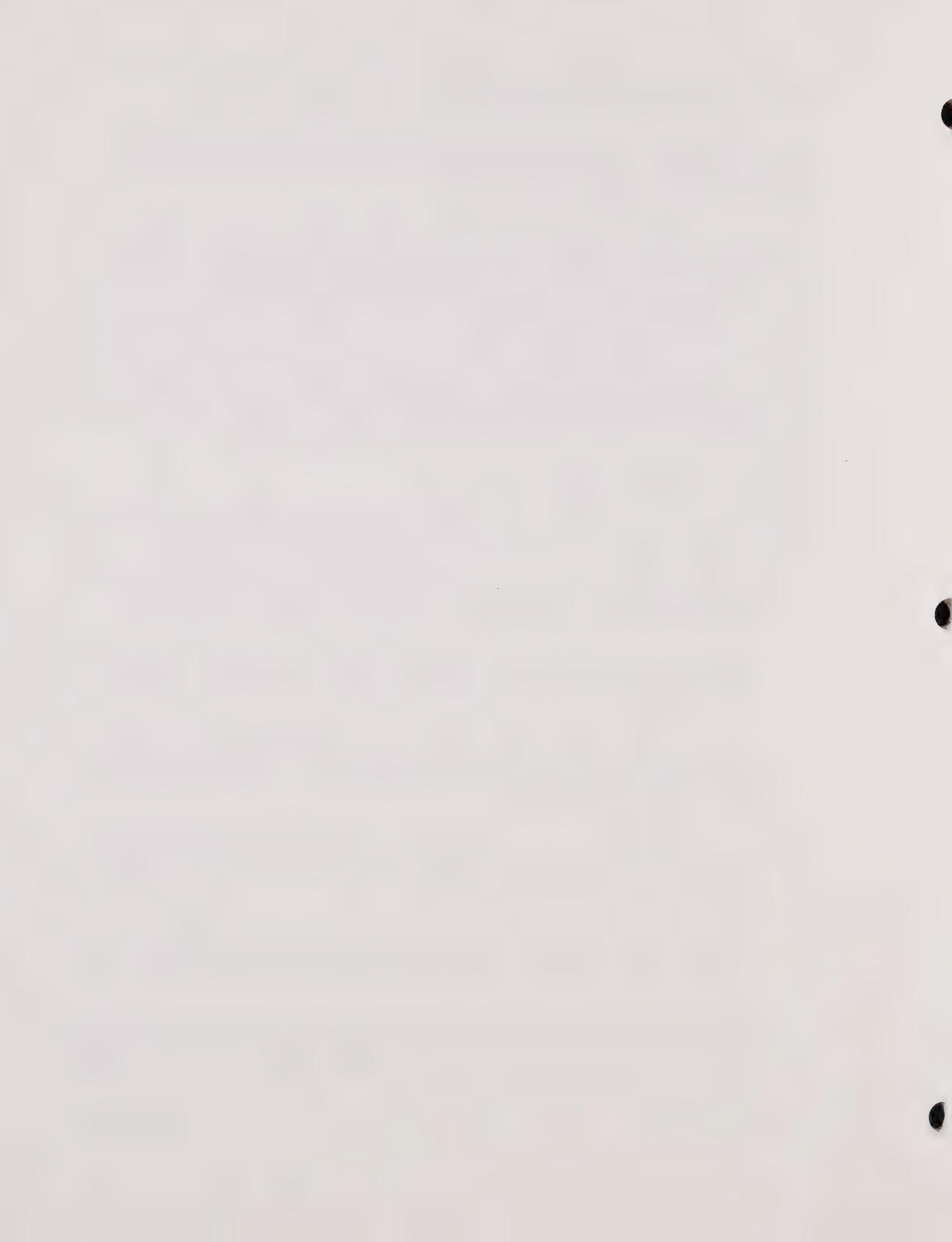
Noise, lights, runoff from parking lots, human intrusion and the cumulative effects of development in the Milpitas-North San Jose Area will likely be identified as significant impacts to wildlife that use the riparian corridor near the proposed stadium site. Bird mortality associated with tall structures may also need to be addressed, since bird migration occurs in mid-spring and late summer which coincides with the baseball season.

Under CEQA, any significant impacts which may occur will require that actions be taken to avoid, minimize and/or mitigate these significant impacts to non-significant level. Mitigation measures proposed are likely to come under the close scrutiny of environmental groups and public agencies, including the California Department of Fish and Game and U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency.

3. Mitigation for Biological Impacts

The following measures could potentially reduce the impacts described above. Additional mitigation may be warranted, if future studies identify the need for extensive measures.

- Locate the ballpark structure as far to the west as feasible, from the top of the western bank of the existing Coyote Creek Channel. CCRS Staff has suggested that a possible buffer width could be a minimum of 500 feet.
- Coordinate with the Santa Clara Valley Water District, U.S. Army of Corps of Engineers, and the Coyote Creek Riparian Station to avoid impacts to Mitigation Areas 3 and 4 located on the west bank of the Creek.
- Conduct further detailed studies of the vegetation and wildlife habitat along Coyote Creek. In addition, these further studies should assess the potential impacts to bird migration along Coyote Creek due to the ballpark structure, light standards, parking lots, human intrusion, and noise.
- The light standards could be constructed as part of the ballpark structure, instead of on top of the structure. The lighting could be directed in towards the playing field, away from Coyote Creek. Parking lot lighting could be directed in towards the parking lots, away from the creek.
- Locate construction fencing along the western border of the creek and the mitigation areas, or provide a physical barrier between the ballpark facilities and the Creek and mitigation areas to avoid human disturbance.
- Retain as many of the existing larger trees as possible, particularly along Zanker Road and at the bus maintenance facility. Together, preservation of the existing trees on site and installing additional landscaping with native species, could provide some wildlife habitat on the site.



D. NOISE

1. Noise Sensitive Receptors

City of San Jose Noise Element Standards

The City of San Jose General Plan Noise Element establishes noise standards for all new development within the city. The standards specify an exterior noise limit of 60 dB L_{dn} for public/quasi-public uses, 70 dB L_{dn} for industrial uses, and 55 dB L_{dn} for residential uses. When the levels exceed these limits, the project is considered incompatible, unless adequate acoustical mitigation is provided.

Existing Noise Levels

The existing noise environment in the study area primarily reflects traffic noise from Zanker Road and State Route 237. Another noticeable source of noise in the study area are jet aircraft as they fly over or near the site. Previous noise measurements conducted in 1987 within the study area indicated day-night noise levels (L_{dn}) of 59 decibels near the bus facility at Zanker Road. Noise measurements taken on the northern edge of the study area, along State Route 237, indicated L_{dn} levels of 63 decibels. These levels exceed the exterior noise levels for residential uses. The levels along State Route 237 also exceed the levels acceptable for public/quasi-public uses. However, the noise levels at both locations are within the acceptable limits for industrial uses.

Noise Sensitive Receptors

The locations of potential noise sensitive receptors are depicted in Figure 6. These receptors include the Agnews Developmental Center to the south of the study area, the mobile home park to the west of Zanker Road, and future high density residential development to the southwest of the study area. These receptors are all located within one mile of the study area.

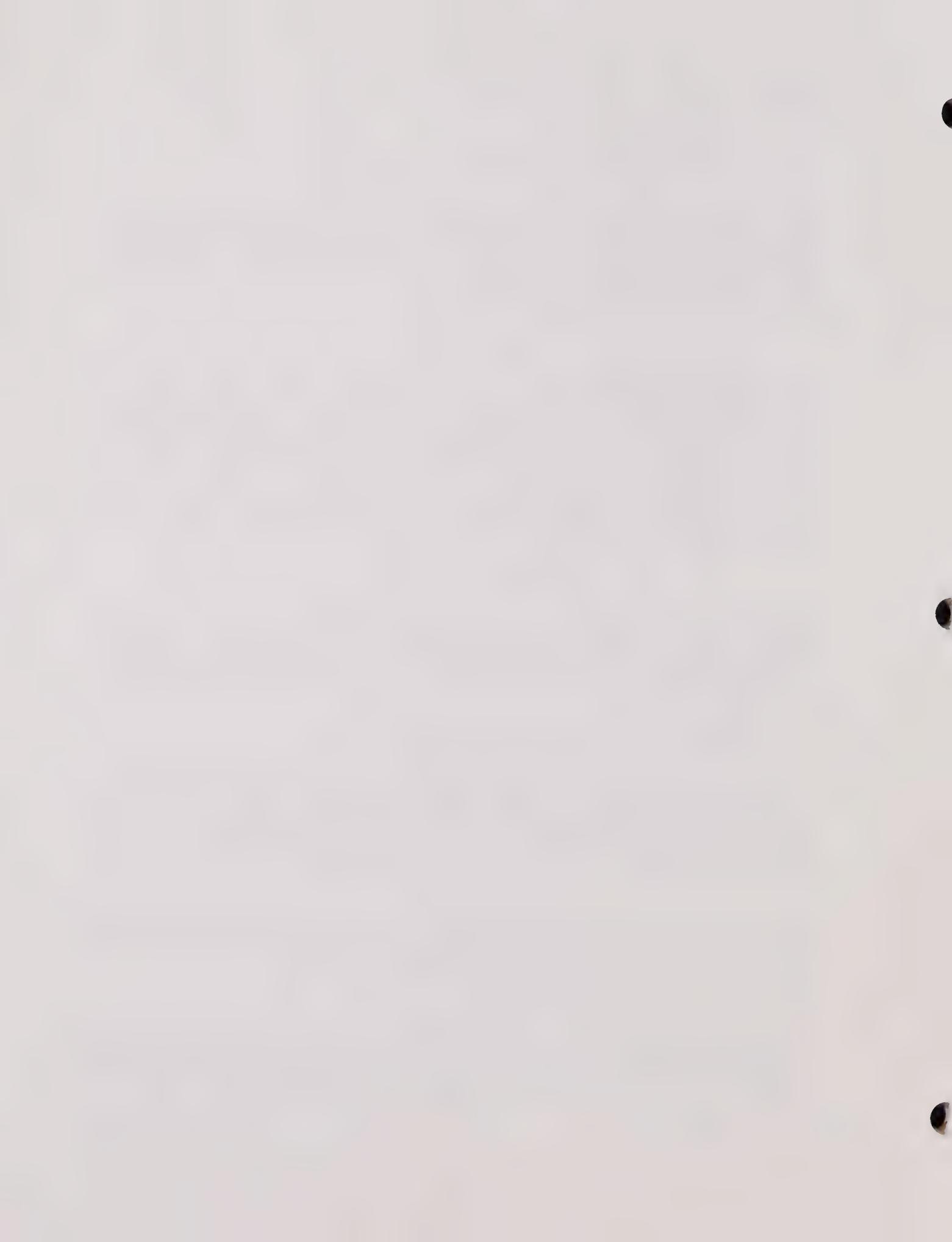
2. Potential Noise Impacts of Stadium-Related Traffic

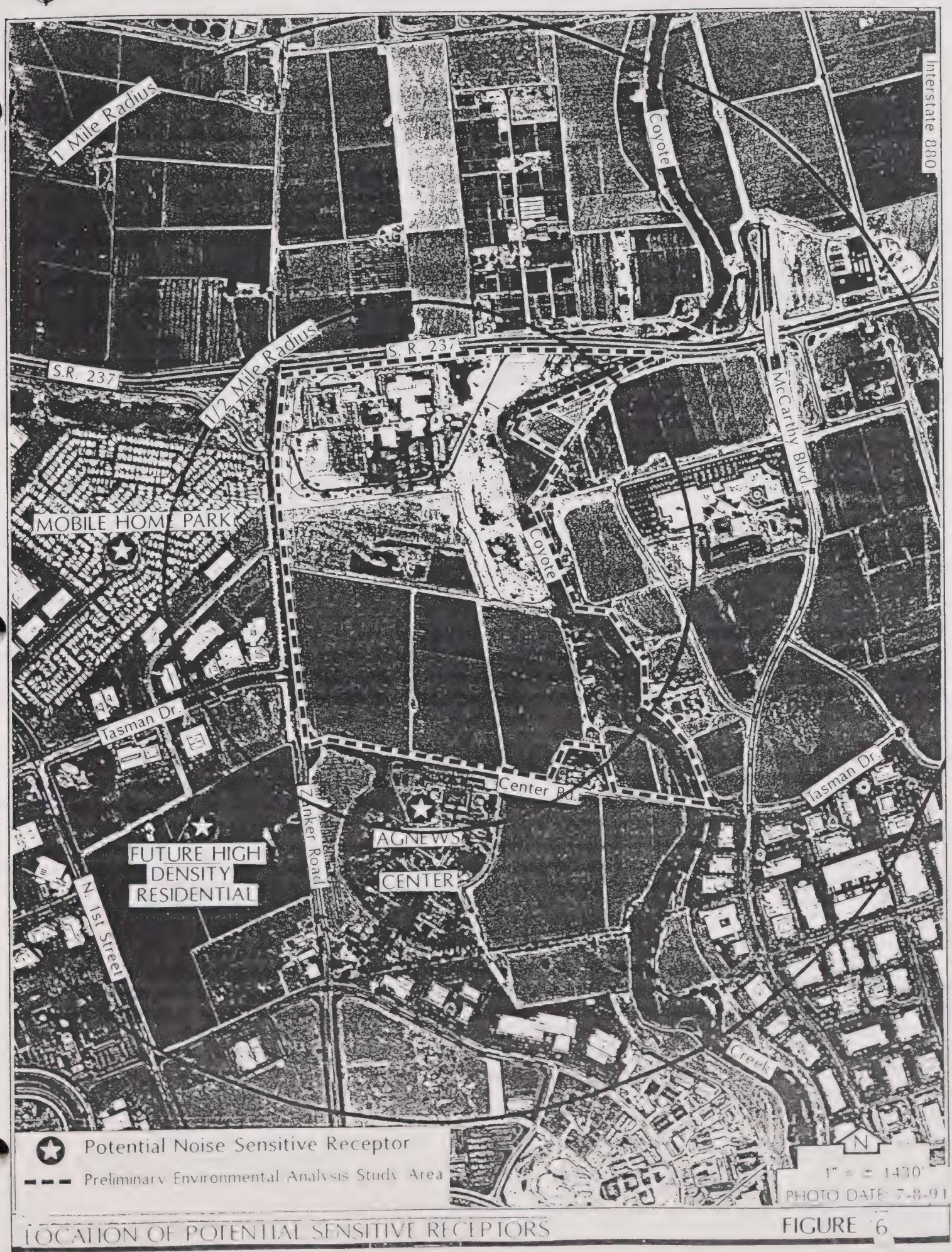
Traffic noise from patrons entering and leaving the parking lots would potentially affect the mobile home park, Agnews Developmental Center, and future residential development near Tasman Drive and Zanker Road. For well-attended events concluding during the PM rush hour the stadium's impact would be to cause a perceptible and potentially significant increase in noise levels along roadways such as Zanker Road, Tasman Drive, and Center Road.

For well-attended events ending late in the evening it is anticipated that the effect would be much worse, since the traffic noise would seem to be two to four times louder than the background sounds which are normally evident at that time of day.

3. Potential Noise Impacts of Other Events at the Stadium

The stadium would be used for other events besides baseball. For example, "rock" concerts could be held there. Since the ballpark is only in the conceptual stage, it is difficult to estimate the noise impacts resulting from concerts at this location. However, a





LOCATION OF POTENTIAL SENSITIVE RECEPTORS



general discussion of noise impacts can be provided based upon conditions at other similar facilities. Examples of similar facilities near the area include the amphitheater at Great America Amusement Park in Santa Clara and Shoreline Amphitheater in Mountain View.

According to information collected in 1990, the City of Santa Clara has had only one complaint about music from the amphitheater at Great America Amusement Park since it was constructed in 1986. That complaint came from the Adobe Wells Mobile Home Park in Sunnyvale, approximately a mile away from the amphitheater.

The Shoreline Park Amphitheater in Mountain View has not fared as well, complaint-wise. There are regular complaints each summer, from residents more than a mile away in the next town, Palo Alto, about intrusive sounds of music coming from the amphitheater at nighttime. The affected neighborhoods are on the side of the freeway (U.S. 101) which is opposite to the amphitheater. These complaints result from an unanticipated effect which seems to be due to nocturnal temperature inversions aloft. Such inversions are frequently formed at night in the Bay Area. The City of Mountain View has attempted to mitigate the noise problem by constructing a barrier and by redirecting the speakers. There has been some noticeable improvement but complaints persist.

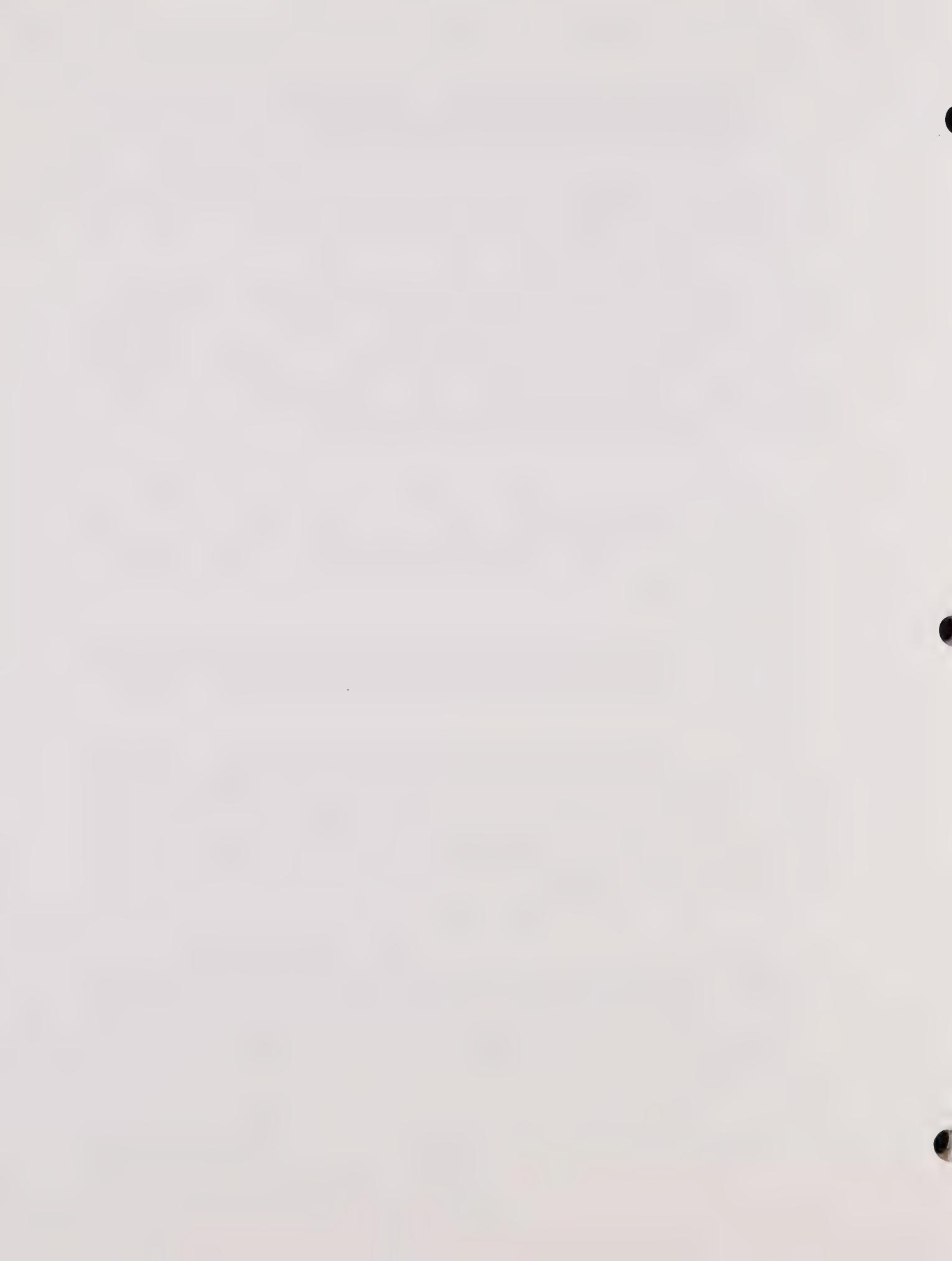
It is possible that musical events held at a stadium in the study area would annoy people at the Agnews Developmental Center or at other residential locations. Previous noise analyses for the construction of an arena within the study area indicated that interior noise levels at the mobile home park would not exceed noise standards with the construction of an arena. This may also be true for a stadium, assuming that proper noise attenuation is provided for the facility.

Other downwind locations that could be affected by stadium noise include the hotel located near the intersection of Route 237 and I-880. In addition, several single family homes are located on the east side of Coyote Creek. These homes could be affected by stadium noise, if they are not removed by the Water District as part of the flood control project.

The stadium would have geometrical design which would be fundamentally different from that of an amphitheater. Hence the phenomenon of long distance propagation of highly-amplified music may not occur. The effect is unfortunately not very amenable to analysis because there is little data which is available on the structure of the temperature inversion which occurs when the anomalous transport of sound is evident, because the effect is complicated to begin with, and because the proposed stadium and its sound reinforcement system have not yet been designed.

Construction Noise

Construction activities would result in temporarily elevated noise levels exceeding acceptable exterior standards. These temporary noise increases will, under most conditions, occur during daytime hours. Construction noise impacts in the project vicinity may be restricted to small areas, or may impact large parts of the surrounding neighborhoods. In either case, construction noise is likely to result in a temporary annoyance to the identified sensitive receptors.



4. Potential Noise Mitigation

The following measures should be considered during the program design work for the stadium.

- The ballpark structure can be oriented to reduce noise impacts to the mobile home park and Agnews by locating the structure to the northeast and by directing it away from these sensitive receptors.
- Noise attenuating building materials should be used to reduce noise impacts. Since the stadium would be an open-air arrangement, it is more difficult to contain the noise within the structure.
- Sound walls could be constructed around the perimeter of the Agnews Developmental Center, on the south side of Center Road, and along the northeastern edge of the mobile home park, to buffer noise levels.
- It is not clear that mitigation of traffic noise would be either necessary or feasible. Given that near-capacity flows from the stadium's parking lots would not be a daily occurrence or occupy more than an hour of any day, the events would have a rather small effect on time-averaged noise levels. It seems doubtful that it would be worthwhile to provide mitigation when only some of the events would generate a significant acoustical impact (namely well-attended events which end in late evening).
- Future contractors should use "new technology" power construction equipment with state-of-the-art noise shielding and muffling devices.
- Future contractors should schedule construction activities in shifts to avoid high noise levels caused by simultaneously operating several pieces of noise-generating equipment. Construction work should be scheduled during the hours of 7:00 a.m. to 7:00 p.m.

The following measures are also recommended if complaints occur once the stadium is constructed and operational.

- If complaints arise from musical events, it may be feasible to avoid them by scheduling the concerts during the afternoon when there is no temperature inversion. Other measures, such as adjustment of the sound reinforcement system should provide some benefit.
- Discourage neighborhood intrusive activities which involve tailgating parties, loud noise, and car stereo noise in parking areas adjacent to the Agnews Developmental Center. Measures to discourage such behavior include posting signs within the parking lots that recognize the need for consideration of the land uses adjacent to the lot. The parking lots could also be staffed with personnel empowered to request that excessively loud stereos be turned down.

All of the above measures will be refined and reconsidered during the preparation of a noise impact study to be conducted during the EIR phase.



E. AIR QUALITY

1. Existing Setting

The study area is located in a non-attainment area for ozone and carbon monoxide, since concentrations of these pollutants sometimes exceed Federal and/or State standards. Air quality near the study area is subject to the problems experienced by most of the San Francisco Bay Area. The Bay Area Air Quality Management District (BAAQMD) operates a monitoring station in Downtown San Jose on Fourth Street. Table 2 summarizes the air quality data for criteria pollutants from the San Jose site for 1987 to 1990. This table indicates that the major air quality problems are ozone, a regional pollutant, and carbon monoxide, a local pollutant.

The Bay Area '91 Clean Air Plan forecasts continued improvement in regional air quality. According to this analysis, carbon monoxide trends in San Jose show attainment by the mid-1990s. Ozone standard attainment, however, will not occur even by the year 2000.

2. Potential Impacts

Construction Impacts

Construction of the stadium will cause an increase in organic gas emissions, which could result in a short-term increase in urban ozone. Solvents in adhesives, non-waterbase paints, thinners, some insulating materials and caulking materials would evaporate into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application. Construction activities also generate significant dust emissions. The specific emissions generated per equipment use is provided on the following page. Construction activities would result in increased dustfall and locally elevated levels of particulates at downwind locations, including the Agnews Developmental Center.

Local and Regional Impacts

Vehicle trips carrying patrons to and from the stadium study area may increase air pollutant emissions, affecting the local study area and the entire San Francisco Bay Area air basin. Regional air pollutant increases may occur for Reactive Organic Gases and Oxides of Nitrogen and particulate emissions.

If a baseball stadium is constructed at the study area location for the purposes of providing the San Francisco Giants with a new ballpark, then vehicular trips to and from Candlestick Park would be reduced during the baseball season. Instead, these trips would be transferred to the study area location. Travel distance to Giants games may also be reduced if a stadium were constructed at this location, if the Giants fan base is primarily located in the South Bay (i.e., South Bay patrons would not have to travel the greater distance to South San Francisco). A reduced travel distance on a regional level could improve air quality conditions at some locations along the Peninsula.



TABLE 2

SUMMARY OF FEDERAL AND STATE
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1 hour	0.12 ppm	0.09 ppm
Carbon monoxide	1 hour	35.0 ppm	20.0 ppm
	8 hour	9.0 ppm	9.0 ppm
Nitrogen dioxide	Annual	0.05 ppm	—
	1-hour	—	0.25 ppm
Sulphur dioxide	Annual	0.03 ppm	—
	24-hour	0.14 ppm	0.05 ppm
	1-hour	—	0.25 ppm
Suspended particulates (< 10 microns)	Annual average	50 ug/m ³	30 ug/m ³
	24-hour	150 ug/m ³	50 ug/m ³
Suspended particulates (all sizes)	Annual	75 ug/m ³	—
	24-hour	260 ug/m ³	—
Particulates	One observation	—	visibility < 10 mi*
Sulfates	24 hours		25 ug/m ³
Lead	30 days 1/4 year	1.5 ug/m ³ —	1.5 ug/m ³
Hydrogen sulfide	1 hour	0.03 ppm	—
Vinyl chloride	24 hours	0.01 ppm	—

*California Air Quality," Volume XIX, Annual Summary, California Air Resources Board.



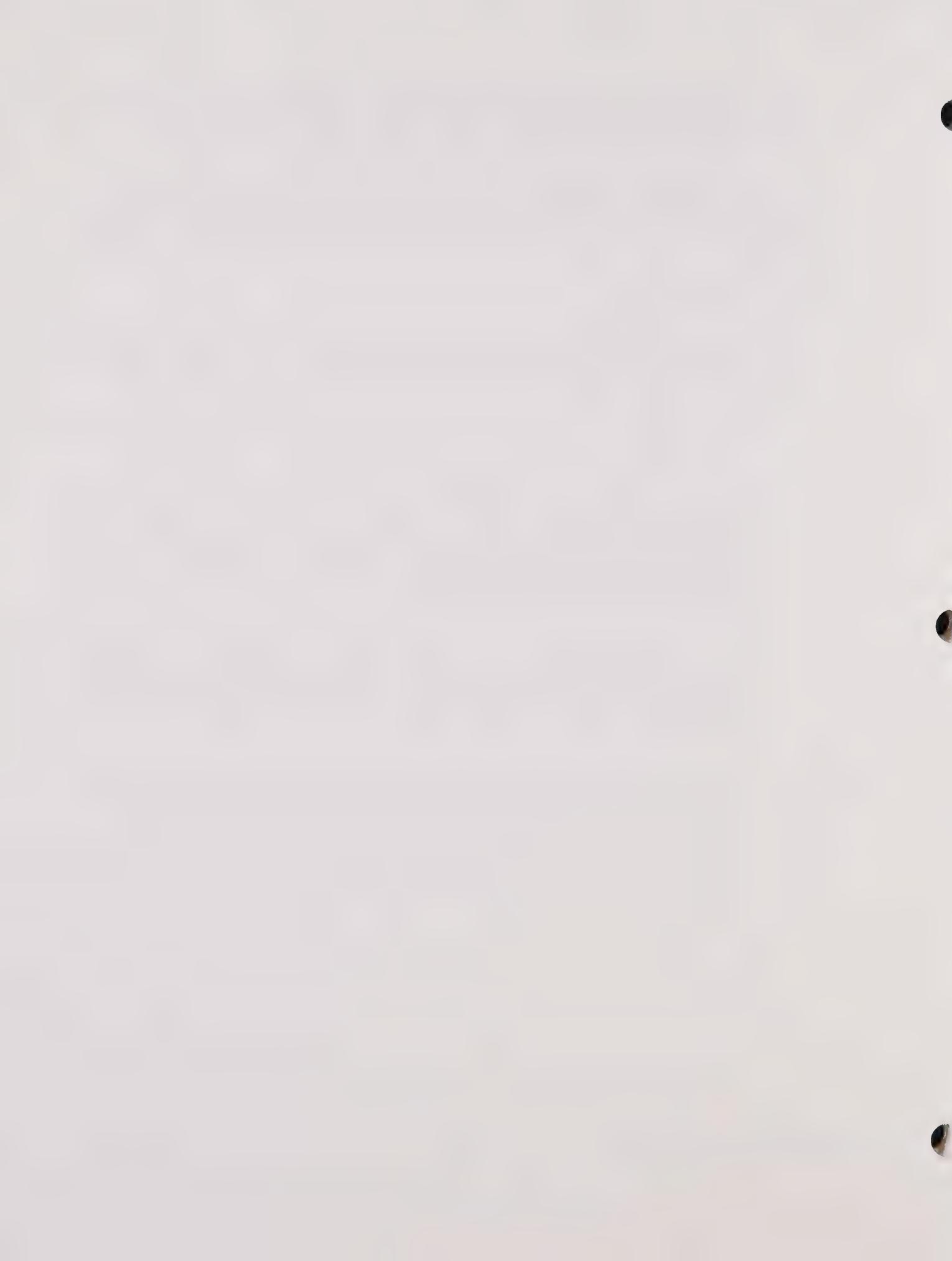
Stadium operations are also anticipated to contribute to stationary sources of pollutants within the study area. These sources include heating and cooling system emissions. In addition, idling vehicles in parking lots would also elevate pollutant concentrations.

It is anticipated that the location of a baseball stadium within the study area may contribute to significant local and regional air quality problems. The ballpark would be required to conform to the provisions outlined in the Congestion Management Program which, in turn, require that a project be consistent with the provisions of the '91 Clean Air Plan.

3. Recommended Mitigation

The City may be required to implement the following measures as part of the development of the stadium. Additional measures may also be required in order to ensure consistency with future adopted Congestion Management Programs and with the '91 Clean Air Plan.

- Conduct detailed air quality analyses as part of the environmental review process for the ballpark.
- During construction, provide equipment and manpower for watering all exposed or disturbed soil surfaces particularly, on windy days or during dry soil conditions (including weekends and holidays). Surround the work site with wind breaks, using berms to prevent soil piles from spilling onto traffic lanes. Sweep/wash construction areas and adjacent roadways of all mud and dust periodically. Cover stockpiles of soil, sand, and debris and trucks used for hauling soil to prevent entrainment into the atmosphere by winds.
- Develop Transportation Demand Management (TDM) strategies that encourage travel modes other than automobile use. TDM is embodied in the proposed Transportation Control Measures contained in the Bay Area '91 Clean Air Plan and is also one of the required elements of the Congestion Management Plan for the County.
- Encourage the use of Light Rail to the site by coordinating with the Transportation Agency and MTC during the development of the Tasman Corridor project. The ballpark may include the provision of a third LRT track for exclusive stadium use.
- The City could sponsor shuttle buses or encourage private businesses to provide shuttles from nearby industrial/office land uses to the stadium site on weekday day and evening games.



F. ODOR

The summary information contained in this section is based upon an analysis conducted by Odor Science & Engineering, Inc. (OS&E) in June, 1991. Monitoring was conducted at various locations on 138 acres of the 195 acre study area evaluated in this analysis.⁷ This monitoring occurred in daytime and nighttime periods during the weeks of May 21, 1991 and June 3, 1991. Detected odors were recorded according to location, time, wind direction and speed, weather conditions, odor character, odor intensity, odor concentration, and degree of pleasantness. Where possible, the odor was tracked to its source. In addition, odor dispersion modeling was employed to assess the worst case conditions of the sludge storage lagoons and drying beds.

The analysis was designed to: 1) quantify the levels, intensities and frequency of perceived odors at the site, 2) quantify the odor emission rates of any sources that may impact the site, 3) perform atmospheric dispersion modeling to establish the worst-case odor levels, and 4) recommend measures to maintain odor levels at less than perceptible levels.

This report is on file with the City of San Jose Department of Public Works.

1. Existing Setting

Odor Sources

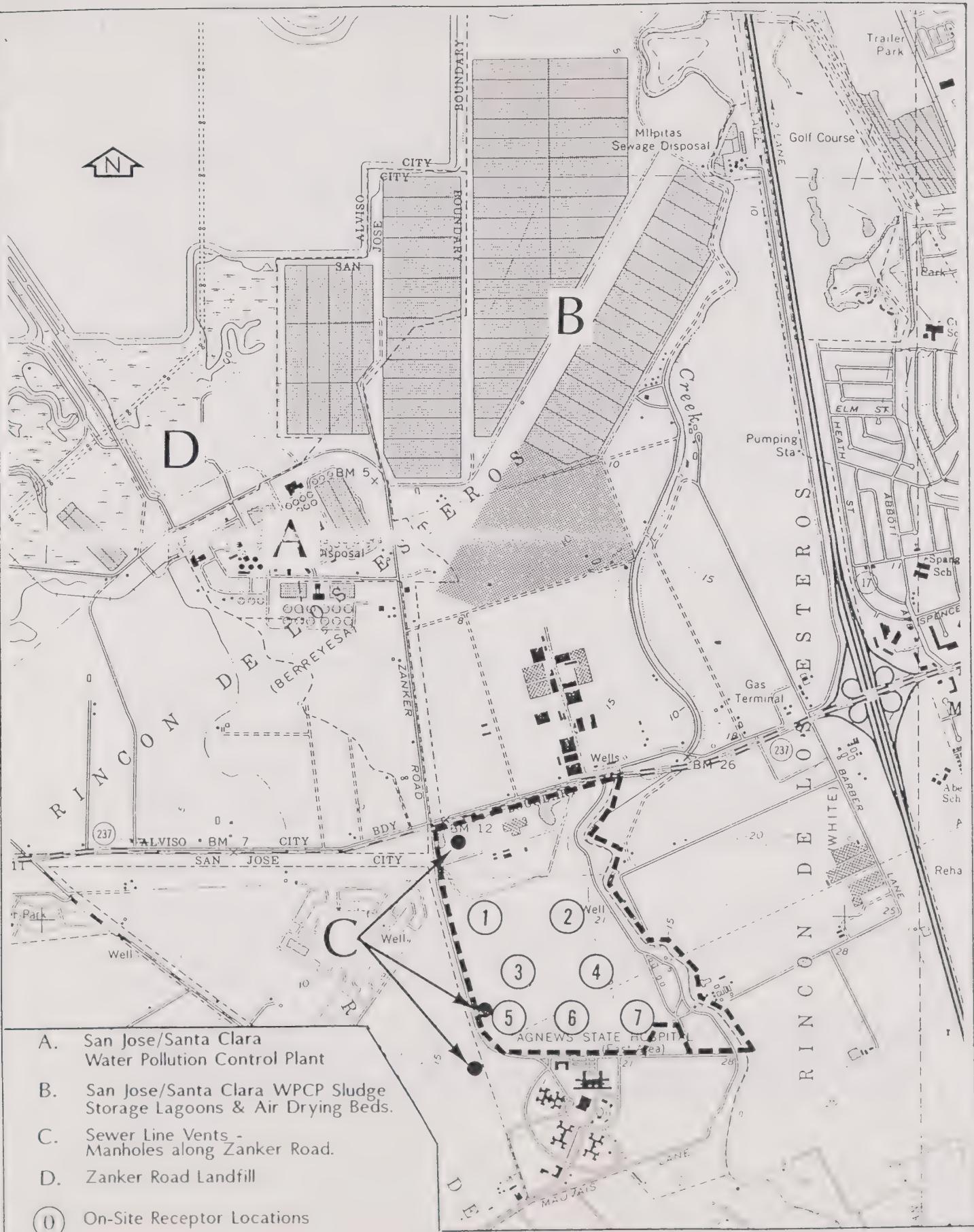
Four primary potential sources of odor were identified within the project vicinity. These sources include: 1) the San Jose/Santa Clara Water Pollution Control Plant (WPCP) located 1.5 miles northwest of the study area; 2) the WPCP sludge storage lagoons and sludge drying beds, approximately one mile to the north/northeast of the study area; 3) sewer line vents and manholes along Zanker Road; and 4) the Zanker Road Landfill, located on the north side of the WPCP (see Figure 7). Other minor sources include active sanitary waste disposal landfill which is also located farther to the north, on Dixon Landing Road and local agricultural activity and salt marshes.

A sewage transport main extends along Zanker Road to the WPCP. Three sewer vents along this main south of Route 237, near the entrance to Agnews, emit a strong "rotten egg, sewage" odor that can be detected 100 meters downwind. Two manholes are located along this main, one near the bus maintenance facility entrance, and the second near the southeast corner of the Zanker Road/237 intersection. The second manhole emits a "rotten egg, sewage" odor that is detectable downwind for approximately 50 meters.

According to the odor analysis, the study area is relatively odor free. The west side of Zanker Road, south of Route 237 is lined with mature, large eucalyptus trees. These trees provide the predominant odor on Zanker Road, and with light northwesterly winds extending approximately 100 meters into the study, create a pleasant odor in the study area as well. The odor character of the study area is of "damp earth or soil" associated with the agricultural activities occurring in at least a portion of the area. This odor can be faintly detected from time to time in the early morning.

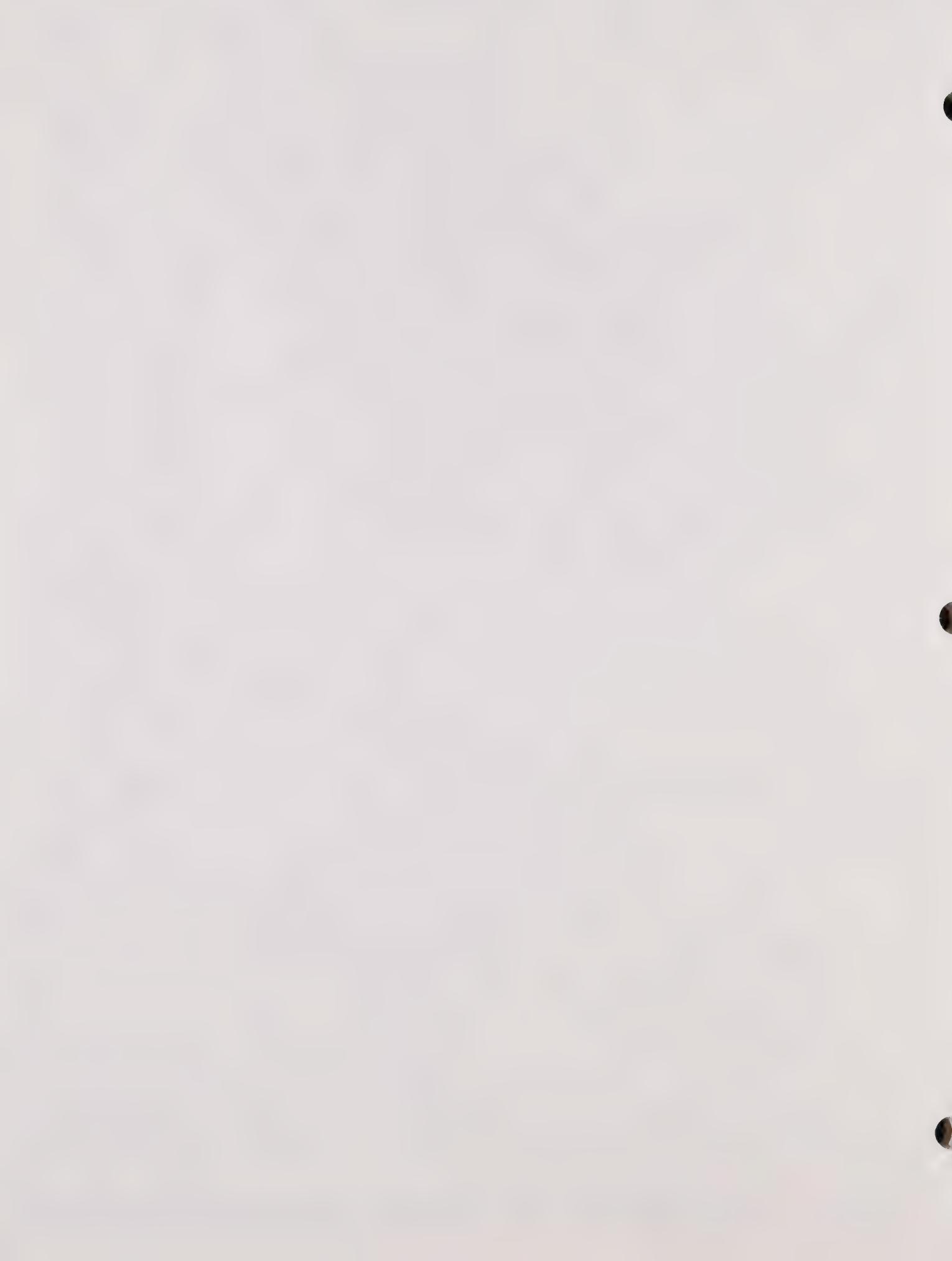
⁷ The odor evaluation investigated the odor present on 138 acres of the 195 acre study area that were anticipated to be occupied by the ballpark facilities.





ODOR MODELING RECEPTOR LOCATIONS & POTENTIAL ODOR SOURCES

FIGURE 7



Site Climatology

The predominant wind direction in the study area is from the northwest. The average wind speed for the year period was 6.8 miles per hour. The atmospheric stability class distribution for the period indicates that *Stability Class D*, neutral conditions with moderate to strong winds occurred most frequently (49% of the time). Conditions of stable inversion, very light winds, typical nocturnal inversion condition and morning fog (*Stability Class E/F*) were the next most common conditions, occurring 31 percent of the time.

2. Summary of Odor Monitoring Results

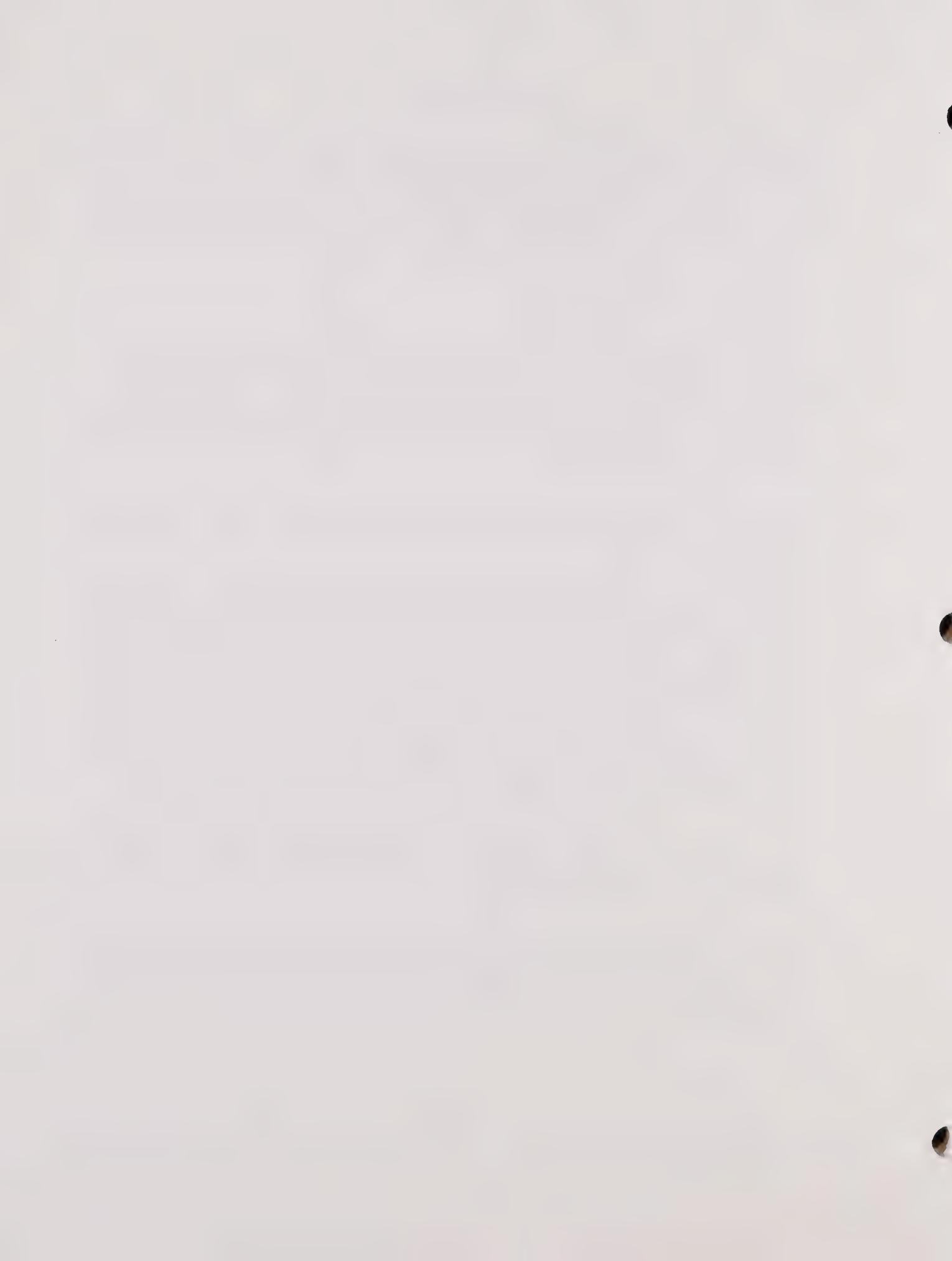
Monitoring results at seven locations on the ballpark site indicate that, with few exceptions, the site is relatively odor free. The main sources of detectable odors on the site are the eucalyptus trees bordering the west side of Zanker Road, south of Route 237. With light westerly winds, the eucalyptus odor along Zanker Road is detectable downwind for a distance of approximately 100 meters. With higher wind speeds or with winds from any other direction, the eucalyptus odor is less intense along Zanker Road and does not extend as far to the east.

Other sources of detectable odors along this section of Zanker Road, south of 237, are the emissions from sewer vents and/or manholes along the sewage transport main which extends along Zanker Road.

With northwesterly winds (winds blowing from the northwest toward the southeast), the pattern of detectable odors was consistent, varying only with wind speed. Under these conditions, the WPCP emits an odorous plume with a characteristic "chlorine" odor with a faint undertone of "sewage" odor. This plume extends across the section of Zanker Road north of Route 237 for approximately 0.3 miles. This odor decays to the threshold limit of odor detection at Route 237 with wind speeds in excess of 10 miles per hour. With lighter wind speeds of approximately five miles per hour, this odor character can be detected on Route 237 somewhere between Interstate 880 and Zanker Road. The precise location of the odor plume is contingent upon the wind direction. Under these wind conditions, the odor plume deteriorates to below the threshold level of detection at the southern edge of the bus maintenance facility.

The damp earth, soil odors are very faint with light winds or calm conditions at night or early morning. These odors will disappear when the ballpark replaces the existing agricultural uses. In addition, the odor of diesel exhaust is also detectable at the entrance and exit of the bus maintenance facility.

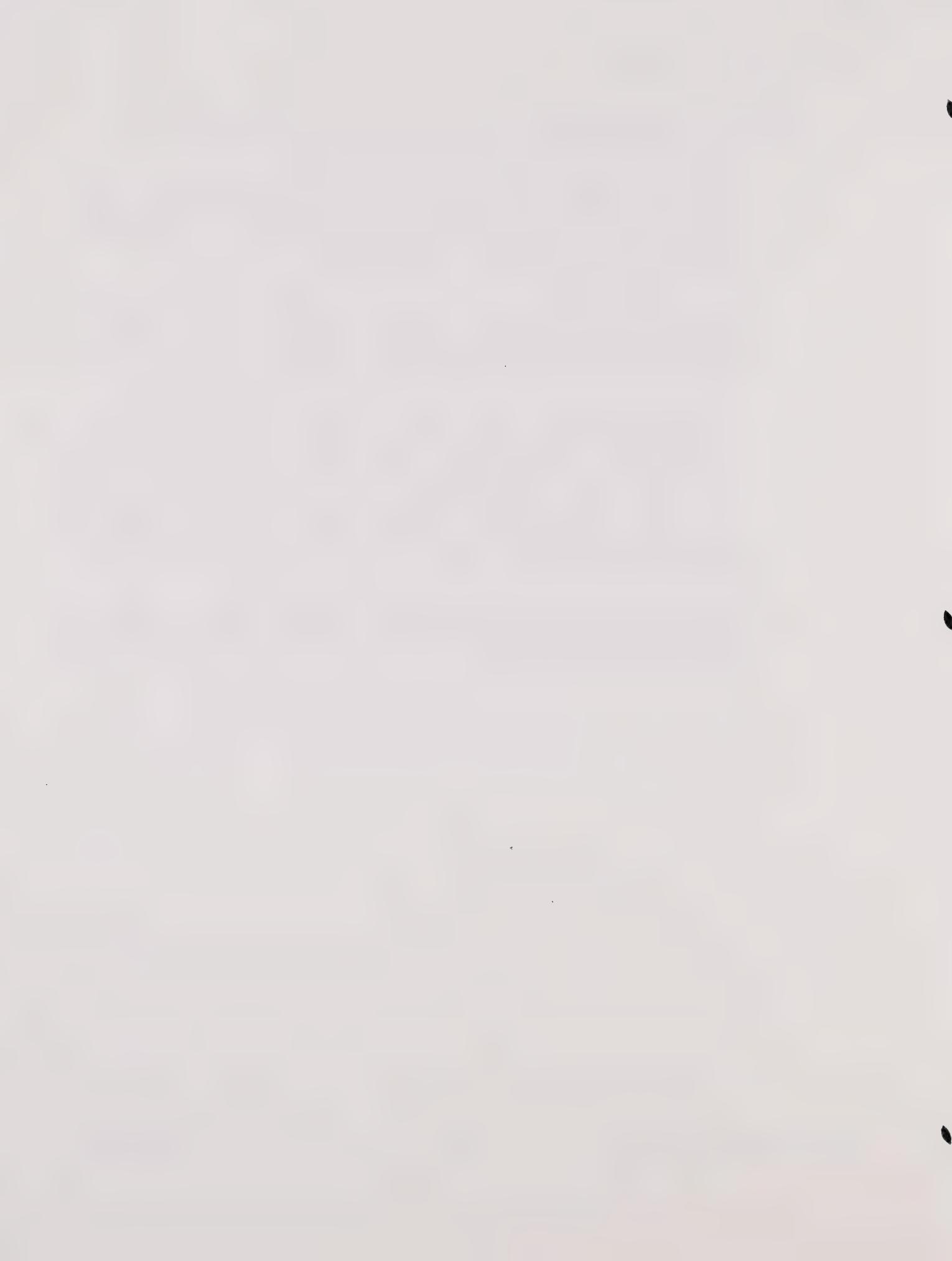
At no time, during any of the daytime or nighttime monitoring surveys, were odorous emissions from the sludge storage lagoons and drying beds detected at the stadium site nor on any of the access roads. In addition, the closed landfill on the northern side of Los Esteros Road and the active major landfill on Dixon Landing Road also proved to be non-odor sources.



3. Recommended Mitigation

Odor Science & Engineering, Inc. recommends the following measures to reduce potential odor impacts within the study area and along the access roads to the stadium:

- Plant a double windbreak of trees, bushes, and shrubs along the southeastern edge of the WPCP. This windbreak should be installed like the one that exists along the southeastern side of the sludge drying beds and lagoons. A windbreak at this location will greatly enhance the dispersion of the odorants, as well as remove the odorants from the air by adsorption in the vegetation.
- Plant mature eucalyptus trees along the northern edge of Route 237 From Zanker Road east to McCarthy Blvd. These trees will ensure aesthetic compatibility between the access road and Zanker Road. In addition, the trees will eliminate perceptible WPCP odor. According to OS&E, if eucalyptol (eucalyptus odor) is mixed with the WPCP odors, only the eucalyptus odor is detectable.
- The San Jose Department of Public Works is planning to install a soil biofilter at the intersection of Zanker Road and Center Road to capture and deodorize the exhausts from the three sewer vents at that location. A soil biofilter uses two effective odor control mechanisms consisting of the adsorption of the odorants and/or organic vapors by the soil particles, and oxidation by the micro-organisms in the soil. This technology is estimated to cost \$250,000. The system is anticipated to be completed by 1993. The schedule of installation could be accelerated to accommodate the stadium, if necessary.
- The Department of Public Works will inspect the manhole at the intersection of Route 237 and Zanker Road. However, this manhole has a double seal and should not be a source of odor. If this is a source, then Public Works will install a soil biofilter at this location, as well.



G. HAZARDOUS MATERIALS

The information contained in this section is based upon a hazardous materials analysis included in the 1987 San Jose Arena Facility - Site C EIR, and upon updated information for various projects within the vicinity of the study area. In addition, the Santa Clara Valley Water District Fuel Leak Site Activity Report and Regional Water Quality Control Board (RWQCB) South Bay Site Management System Quarterly Reports were also consulted for 1991.

1. Existing Setting

The existing land uses on the 195 acre study area site include agricultural and public/quasi-public land uses. The bus maintenance facility is located in the northern portion of the site, in an area that was once a peach orchard. A man-made excavated area is located along the southern border of the bus maintenance facility. Agricultural uses consisting of bell pepper crops are located on approximately 97 acres in the southern half of the site. In addition, a new Cogeneration Plant that provides energy for the Agnews Developmental Center, immediately south of the future Tasman Drive extension, is located in the southeastern corner of the property.

Partially enclosed storage areas on the bus maintenance facility revealed the presence of lumber and other miscellaneous discarded materials. One above-ground water tank was observed to the west of the western bank of Coyote Creek. This water tank appeared to be affiliated with the agricultural uses in the study area. Abandoned buildings and construction materials were also located along the western bank. Above ground storage tanks were further observed at the Cogeneration Plant.

The following documented cases of soil and/or groundwater contamination were noted within a one mile distance of the study area.

On-Site Sources of Contamination

The bus maintenance facility in the study area contains documented soil and groundwater contamination. On June 12, 1984, monitoring wells detected a release of diesel fuel from the underground fuel delivery system at the bus maintenance facility. Contamination at the site resulted from the corrosion of fuel lines, which were subsequently repaired or replaced. Due to the impermeability of the soil, fuel contamination was limited to backfill regions of the underground storage tanks and line trenches. As of 1987, the fuel and utility line trenches in the storage tank and pump island areas were saturated with diesel fuel. Recent information indicates that the site contains an active diesel leak.

Potential soil contamination may exist at the facility due to the leakage of engine oil and deposition of asbestos from brake systems associated with the out-of-service coaches.

Agricultural uses exist on the site and may have resulted in soil and/or groundwater contamination from the use of herbicides and pesticides. In addition, agricultural wells are also likely to be located on the site.

Contamination on the State property located within the study area was also reported (Fire Department, 1991). This contamination may be associated with the Cogeneration Plant.



Off-Site Sources of Contamination

A preliminary review of the documented cases of soil and groundwater contamination identified the presence of four fuel leak cases within one mile of the study area, including the Bus Maintenance Facility. The names and locations of these four sites are provided below:

- | | |
|--|---------------------------|
| • Cilker Orchards #3 | 1595 Milpitas Alviso Road |
| • Santa Clara County
Bus Maintenance Facility | 3990 Zanker Road |
| • Lindsays's Inc. | 2460 Zanker Road |
| • Goble Property | 1650 Zanker Road |

In addition, the Foxboro Incorporated site located at 199 River Oaks Pkwy. reportedly contained documented groundwater contamination. The source of contamination at this site was reportedly due to an underground waste storage tank and piping. This tank was removed in 1985 and on-site groundwater remediation was implemented in 1987. The air stripping system located on the site has operated continuously since December, 1989.

A Hazardous Materials Survey conducted for the State Route 237 Freeway Upgrade Project also identified six sites with potential for soil and/or groundwater contamination near the stadium study area. One of these sites is the bus maintenance facility located within the stadium study area. The remaining five sites are as follows:

<u>Name of Documented Site</u>	<u>Address</u>	<u>Approximate Distance From the Study Area</u>
• Icot Corporation	3801 Zanker Road	1/4th of a mile
• Otel Commercial Corp.	80 Tasman Drive	3/4ths of a mile
• Shell Service Station	1310 Alviso-Milpitas	3/4ths of a mile
• PG&E Gas Terminal	237/I-880	3/4ths of a mile
• Varian	596 Alder Drive	1 mile

The Shell Station reportedly contains an underground fuel leak. The station will be removed during the upgrading of Route 237. An underground fuel storage tank was removed from the PG&E gas terminal in 1985. Soil samples taken at this location during that time did not indicate detectable traces of soil contamination. PG&E currently stores hazardous materials above ground, north of the study area.

The Otel Corporation, Icot Corporation and Varian have filed either a chemical inventory list or a Hazardous Materials Management Plan because these facilities handle limited quantities of hazardous chemicals.

Various agricultural uses exist between Coyote Creek and I-880 on the north and south sides of the proposed Tasman Drive extension between Barber Lane and Alder Drive. Pesticide contamination in agricultural areas near the study area is suspected, given the extensive agricultural activities.



2. Potential Impacts

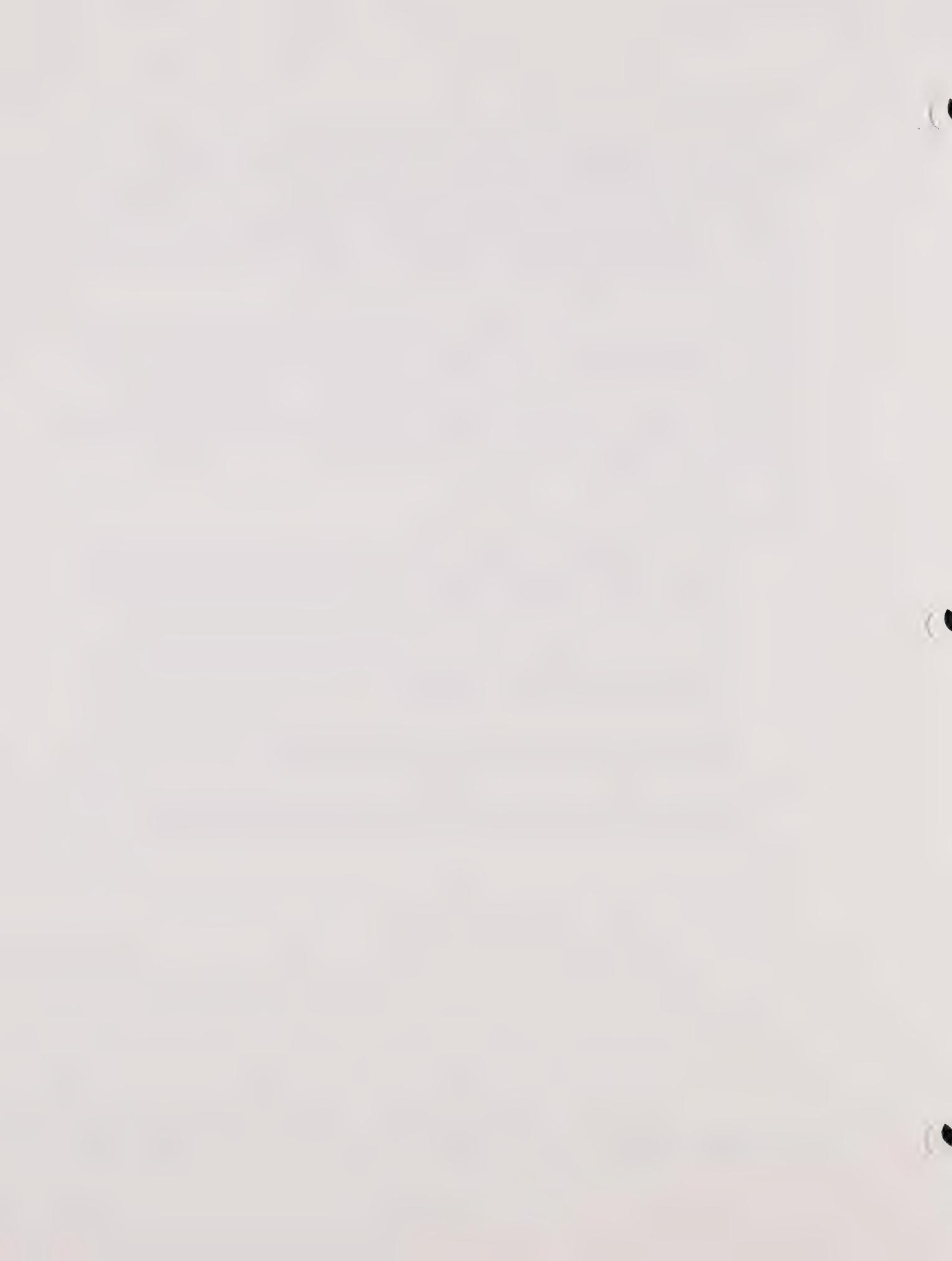
Construction of the stadium is anticipated to occur in an area occupied by previous and existing land uses that are documented or suspected sites of soil and/or groundwater contamination. Replacement of the existing agricultural uses with the stadium would accomplish two objectives: 1) the replacement of existing land uses that involve suspected contamination with a stadium that is not anticipated to involve the use, storage, or handling of hazardous materials, and 2) the investigation and possible removal of any potential areas of contamination which may exist in the project area, the cleanup of which might otherwise not be possible.

Fuel leak sites have been reported within a one-mile radius of the project site. Potential groundwater contamination could result from off-site fuel leak sources, depending upon the direction of ground water flow. This potential contamination could impact the study area.

Clean-up of any identified contamination on the stadium site would be required prior to project development. As a result, grading and paving activities associated with the construction of the parking lot should not interfere with on-site and off-site soil and groundwater remediation.

3. Recommended Mitigation

- Prior to the acquisition of property within the study area, additional investigations will be required to ascertain the extent and degree of contamination on the property, if any. It is recommended that Phase I and Phase II site assessments be performed in the study area to determine the extent and degree of contamination.
- If any additional contamination sites are encountered during construction, all work within the area of the suspect site should cease, until the site is characterized and appropriate remedial actions are implemented.
- All construction and excavation activities for the stadium should avoid areas where remediation is presently occurring and areas where monitoring wells are located.
- Any existing agricultural wells on the site should be properly sealed and closed in accordance with the Santa Clara Valley Water District standard procedures.



H. PUBLIC SAFETY ISSUES

The presence of the high pressure gas lines, the Agnews Cogeneration Plant, the LRT tracks on or adjacent to the site would result in potentially significant hazards. It is also possible that the maintenance activities occurring at the Santa Clara County Transit Bus Maintenance Facility could also create a hazard at the site. In addition, the activities at the San Jose/ Santa Clara Water Pollution, specifically the rail-transport of liquid chlorine, could result in potential hazards at the site. A description of the types of hazards related to these activities and possible mitigation measures are provided below.

1. High Pressure Gas Lines

Hazard

Two high pressure gas lines are present on the site. One 10 to 12 inch gas line extends along the eastern portion of the site and connects to the existing cogeneration plant within the study area, but to the southeast of the stadium overflow parking lot location. The second gas line consists of a 24-inch high pressure gas line located within a 15 foot easement across the northern third of the site.

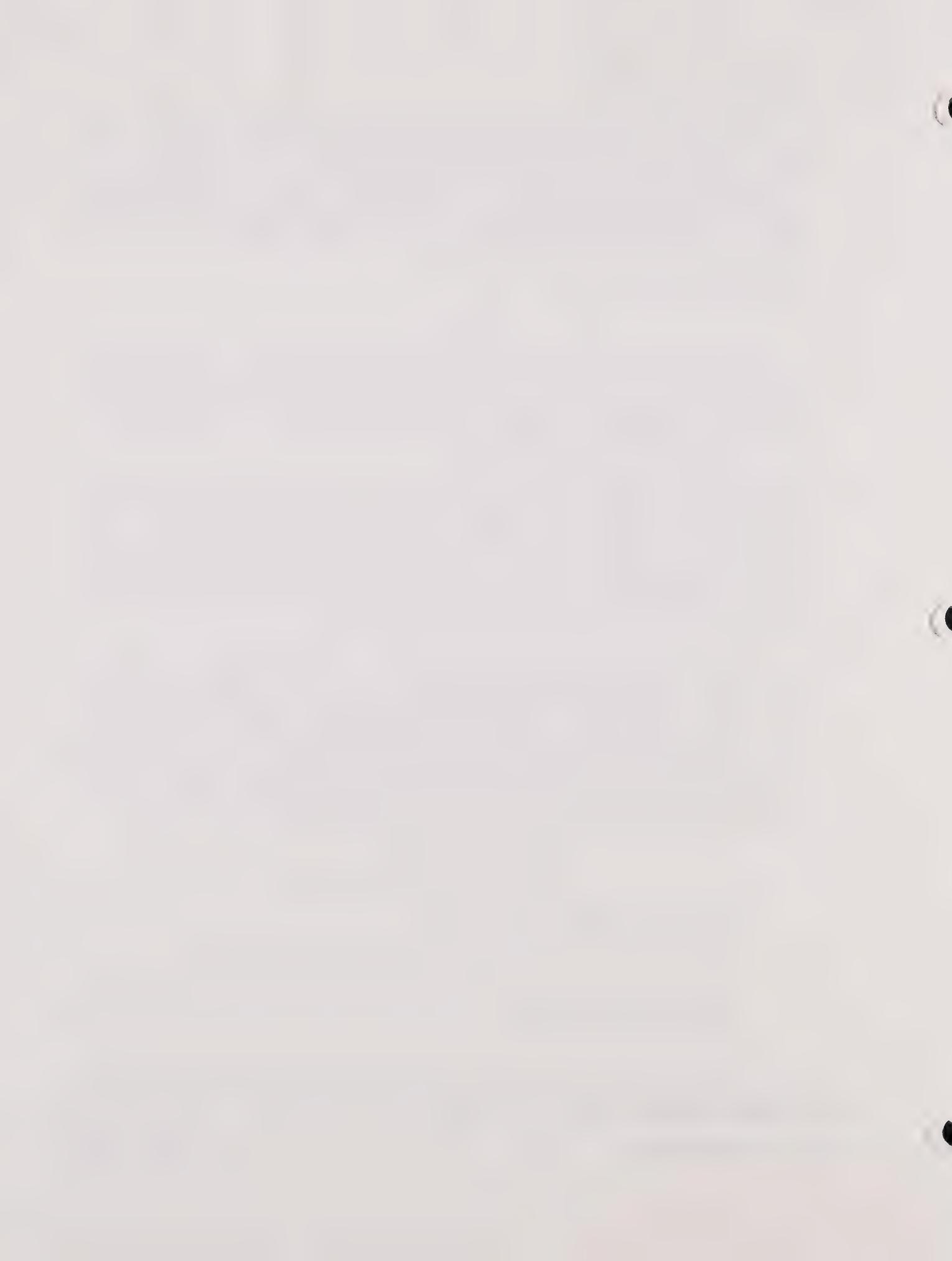
Excavation and construction activities in the area of the gas lines would require the horizontal and vertical relocation of the gas lines. The 24 inch high pressure gas line poses significant hazards for the stadium, at its present location, should it fail. The second 10 to 12 inch line could also pose a hazard, if it is a high pressure gas line. Possible hazards include fire and/or explosion, and the toxic effects of gas leakage on humans. These hazards could result from a rapid failure of the gas line, or if a small undetected gas leak allows gas concentrations to accumulate in the soil and/or in the atmosphere.

The City of San Jose *Development Guidelines for Land in Proximity to High Pressure Natural Gas Pipelines* require that "high-density occupancy load" buildings⁸ of more than two stories be set back at least 250 feet from the edge of the pipeline right-of-way. As a result, construction of the ballpark would require the relocation of at least the 24 inch high pressure gas line to a new location a minimum of 250 feet away from the structure. The relocation of this line may also warrant the relocation of the portion of the line on the east side of Coyote Creek. It is also possible that the 10 to 12 inch gas line may require relocation, further to the east, depending upon the location of the stadium structure.

Recommended Mitigation

- Public safety can best be ensured by the relocation of the gas lines to locations a minimum of 250 feet from the stadium.
- An emergency response and evacuation plan should be implemented.
- Parking, streets, walks, and landscaping could be located within the PG&E easement for the gas lines.

⁸ High-density occupancy load buildings include restaurants, drinking establishments, conference facilities, stadiums, auditoriums, hospitals, and nurseries for children.



- Landscaping within the right-of-way should be designed to avoid access impediments, and to avoid damage to the pipelines due to deep rooted shrubs or trees.
- All uses within the right-of-way are contingent upon written approval from PG&E prior to the start of any construction or excavation activity.

2. Cogeneration Plant

Hazard

The Agnews Cogeneration Plant is located in the southeastern corner of the state property, on the western border of the potential parking facilities for the stadium site. This facility is a joint public/private facility owned by Agnews State Hospital and managed by Cal Pine Corporation. The cogeneration plant uses natural gas to generate electricity for Agnews State Hospital. A high pressure gas line extends along the eastern border of the proposed ballpark site (to the west of the west bank of the creek) and transports the natural gas to the cogeneration plant. No underground storage of hazardous materials is known.⁹ However, aboveground tanks were noted on the site. This plant is permitted by the Bay Area Air Quality Management Board (BAAQMD) and the Office of Energy Assessment, State of California.

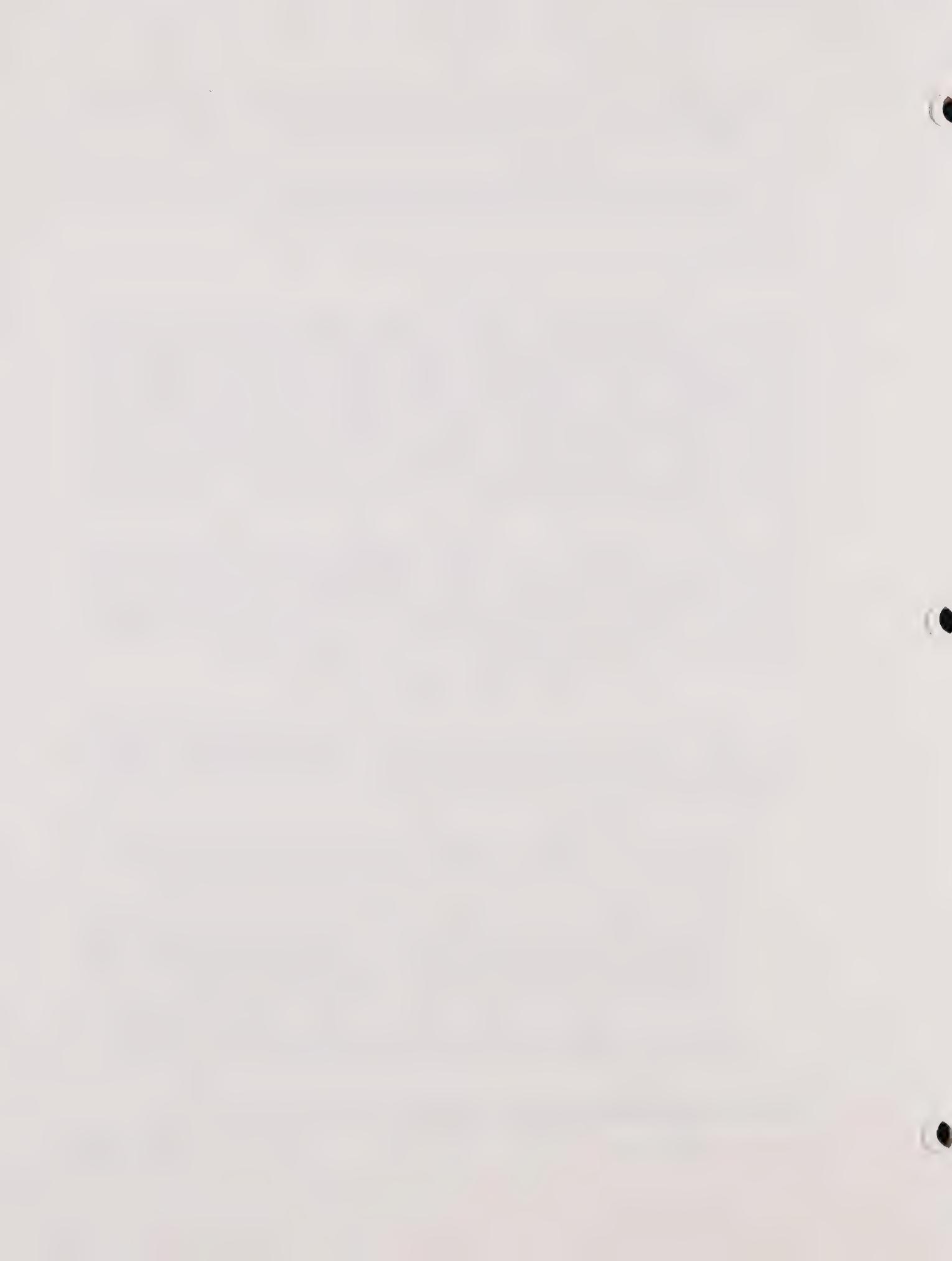
The proximity of the Cogeneration Plant to the stadium may result in potential safety issues, in the event that the gas line which connects to the plant ruptures. Possible hazards include fire and/or explosion which could result from a rapid failure of the gas line, or if a small undetected gas leak allows gas concentrations to accumulate in the soil and/or in the atmosphere. Additional hazards could result from fire, explosion, and/or the accidental release of any hazardous chemicals stored or used on the site.

Recommended Mitigation

The following measures are recommended to reduce the potential hazards that could affect the stadium. However, these measures are by no means all-inclusive. Additional measures may be necessary, depending upon the results of more detailed investigations of the Cogeneration Plant facility.

- A detailed surface reconnaissance of the plant facilities and a review of the plant operations would assist in determining the degree of potential hazards. This evaluation should be conducted during the environmental review process.
- Physical barriers (i.e., construction fences, concrete berms, etc.) should be considered for possible construction around the perimeter of the cogeneration plant. These barriers would physically separate the plant operations from the stadium, thereby reducing the potential for stadium patron intrusion into this area.
- Security patrols may be necessary within the overflow parking lot and adjacent to the Plant to discourage stadium patrons from trespassing on the plant property.

⁹ Bechtel, Inc., Phase I Analysis of the San Jose Site, September 13, 1991.



3. Bus Maintenance Activities

Hazard

The Santa Clara County Transit District Cerone Bus Maintenance Facility is located in the northern portion of the site, bounded by State Route 237 to the north and Zanker Road to the east. Maintenance activities occur at the site involving the use, storage, and handling of hazardous chemicals. The fuel delivery system at the maintenance facility consists of approximately seven diesel tanks (two 30,000 gallon and five 12,000 gallon) and one 12,000 gallon unleaded gasoline tank, linked via two fuel delivery lines.¹⁰ Three additional underground storage tanks exist at the facility, independent of the fuel delivery system. One 8,000 gallon tank and one 2,000 gallon tank contain waste motor oil. The third 550 gallon tank contains automatic transmission fluid. Above ground storage consists of a single 6,000 gallon propane tank and engine coolant stored in 55 gallon containers. An isolated shelter contains paints and solvents used for painting operations. All of the storage tanks were certified as leak free under the criteria established by the National Fire Prevention Association (Geonomics, 1985).

The proximity of the bus maintenance yards to the stadium may result in potential safety issues due to fire, explosion, and/or the accidental release of any hazardous chemicals stored or used on the site.

Recommended Mitigation

- A detailed surface reconnaissance of the maintenance yard and a review of the plant operations would assist in determining the degree of potential hazards. This evaluation should be conducted during the environmental review process.
- Physical barriers (i.e., construction fences, concrete berms, etc.) should be considered for possible construction around the perimeter of the maintenance yard areas. These barriers would physically separate the yard from the stadium, thereby reducing the potential for stadium patron intrusion into this area.
- Security patrols may be necessary within the parking lot and adjacent to the maintenance area to discourage stadium patrons from trespassing in the area.

4. Chlorine Hazards

Hazard

The study area is located approximately 1.5 miles southeast of the San Jose/Santa Clara Water Pollution Control Plant (WPCP) chlorination facilities and liquid chlorine rail tank car berthing area. The entire plant facilities occupy approximately 150 acres of the entire 1,600 acre plant property. The remaining acreage consists of 780 acres of buffer land and approximately 825 acres reserved for solids handling and storage. Buffer land is used for

¹⁰ This information was gathered by Geonomics, Incorporated in 1985 and is contained in the San Jose Arena Facility - Site C EIR, August, 1987.



flood control, wetlands and agricultural uses. Additionally, approximately 285 acres of the property are reserved for permanent buffer land.¹¹

Existing Chlorine Facilities and Operations

Chlorine usage in the wastewater treatment processes averages 24,000 pounds (12 tons) per day, while total chlorination facilities capacity is 160,000 pounds per day. Liquid chlorine¹² has been effectively used since the wastewater treatment plant was first constructed in 1956. Until 1971, chlorine was delivered in one-ton containers. Since 1971, chlorine has been received only in railroad tank cars directly from the producers. According to previous studies of the chlorine-related operations, the existing plant facilities are well designed, operated and maintained.¹³

The City of San Jose owns a 1.6 mile industrial railroad spur on City-owned property. This spur extends from the Southern Pacific Railroad mainline in Alviso to the WPCP. The spur track terminates in three parallel ladder tracks, which provide two berths for unloading the chlorine cars, and one berth for unloading sulfur dioxide. This spur crosses two public roadways at-grade, crosses under one high voltage transmission line, and crosses over several sloughs. Over one mile of the length of the spur is situated on low swampland adjacent to the Bay. The rail line spur enters the plant buffer zone on the southerly edge of Los Esteros Road at a locked gate. The spur extends to the railroad car parking area.

Information provided by the WPCP in 1987 indicated that no significant accidental chlorine releases were reported over the past eight years. Prior to this period, various types of accidental leaks were reported. No serious threats to public safety were observed or reported.

Potential Hazards

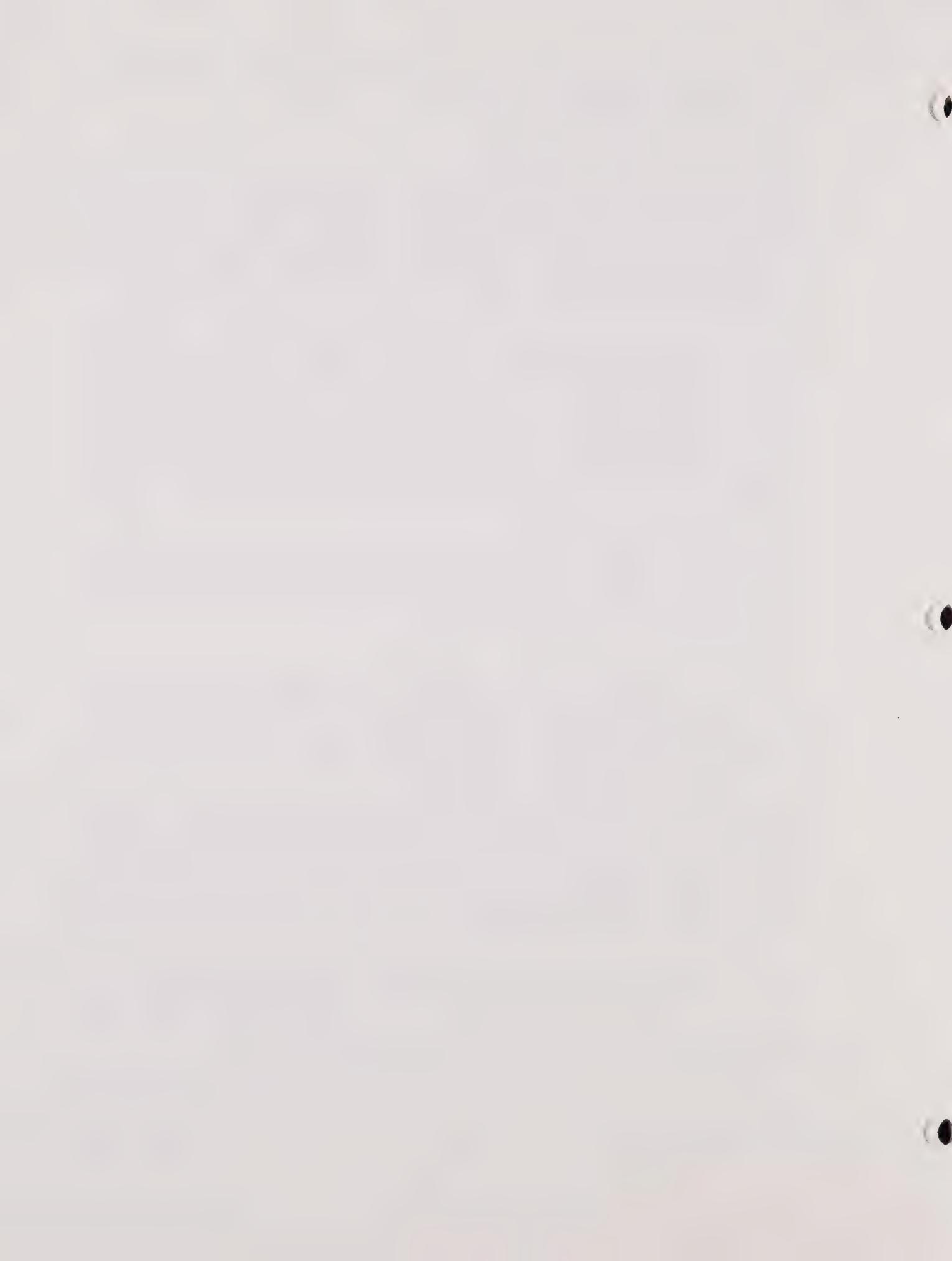
Chlorine gas is primarily a respiratory irritant. Large amounts of chlorine will cause irritation and inflammation of the mucous membranes of the eyes and respiratory tract. The odor of chlorine gas is detectable at concentrations above three parts per million (by volume). Chlorine gas can cause discomfort and temporary or permanent damage to the respiratory system. An overdose can also cause death.

Potential hazards which could result from the chlorine operations include gas emissions resulting from the unchecked liquid flow through a one-inch line connected to a rail tank car. A severe accident scenario could involve the simultaneous guillotine break failure in the liquid chlorine pipeline, the failure of the excess flow-check valve in the tank car, improper closure of the liquid chlorine angle valve in the tank car, and a tank car that is filled with liquid chlorine. The potential for this worst case accident scenario is remote,

¹¹ City of San Jose, San Jose Arena Facility - Site C Final Environmental Impact Report, August 1987.

¹² Liquid chlorine is classified as a non-combustible, non-explosive gas. Chlorine is a strong oxidant, and at elevated temperatures, it can cause steel to burn, resulting in container failure.

¹³ Kennedy/Jenks/Chilton, Chlorine Risk Analysis for Site "C" of the Proposed San Jose Arena, August, 1987.



and previous analyses of the plant operations indicate that the existing engineering and safety procedures at the plant significantly reduce the potential for this occurrence.

If the worst case accident scenario were to occur, under adverse climatological conditions, safety hazards could result at the stadium site. Mortality due to chlorine gas exposure would be virtually zero for exposures to concentrations of less than 35 parts per million at the stadium location, unless the exposure time were extremely long or the victim had other health complications. Noticeable health impacts including throat irritation or coughing would be encountered under adverse conditions for a release of less than 2,500 pounds per hour. Under average conditions, a more substantial leak would be required before dangerous exposure levels exceeding 20 to 30 parts per million occur at the stadium site. For the worst case accident, under average meteorological conditions, chlorine concentrations exceeding 20 parts per million would not occur at the stadium site.

Chlorine Transportation Hazards

Although the risk of occurrence is very small, the greatest potential for casualties is due to the transport of chlorine from the producer to the user. This reflects the greater potential for tank car accidents that could cause rupture (rather than a leaking valve or pipe) associated with railroad transportation accidents. This type of rupture could result in an almost immediate release of about 20 percent (18 tons) of the tank car's contents into the atmosphere. Similar events have occurred and resulted in injury and death.

Recommended Mitigation

The following measures are recommended for consideration at the Water Pollution Control Plant.

- Schedule the transport of the liquid chlorine railroad tank car on the City-owned spur to avoid arrivals and departures during periods when stadium events are scheduled. Moreover, railcar delivery and connects/disconnects could occur during the early morning hours when the wind is generally out of the south.
- Construct a railroad car berthing area containment structure to control emissions of chlorine gas from a tank car. This facility could be equipped with caustic scrubbers to react with chlorine vapors.
- Construct an earthen berm between the berthing area and Los Esteros Road to limit exposure of berthed cars to the public.
- Chlorine system failure modifications could be provided to improve safety, incorporating the best control technology available at the time the stadium is constructed.

The following measures are recommended for consideration at the stadium location.

- Install early warning systems into the stadium facilities to initiate timely evacuation of the stadium in response to an alert from the WPCP. This system could use telemetry. The warning system could also transmit to local fire, police, and medical services to facilitate emergency response.



- Design parking lot and stadium exits that provide safe and expeditious evacuation. Building exits should be located on the south side of the stadium, in the cross-wind direction.
- Utility control systems could provide for the shutdown of HVAC equipment in response to a chlorine release. Air intake ventilation openings should be located on the southerly side of the structure and could be fitted with automatic self-closing louvers.
- Topographic features could be incorporated into the stadium site design to assist in atmospheric dispersion. Earthen berms in the study area or north of the stadium site on the WPCP buffer land property would induce dispersion.
- A heliport could also be provided on the site to provide for medical evacuation.

5. Pedestrian/Railroad Crossing

Hazard

The extension of the Tasman Corridor Light Rail Transit (LRT) project would traverse the southern half of the proposed stadium site. At this time, it is anticipated the LRT corridor would consist of two LRT tracks across the site. However, the development of a stadium within the study area may warrant the construction of a third LRT track for exclusive stadium use. Together, the three tracks, and the six-lane Tasman Drive roadway facilities would provide potential pedestrian hazards. These pedestrian hazards would be generally characterized by potential pedestrian/LRT car conflicts and pedestrian/vehicular conflicts. The likelihood of such conflicts increases with the placement of overflow parking lots on the south side of tracks and the siting of the stadium on the north side of the tracks.

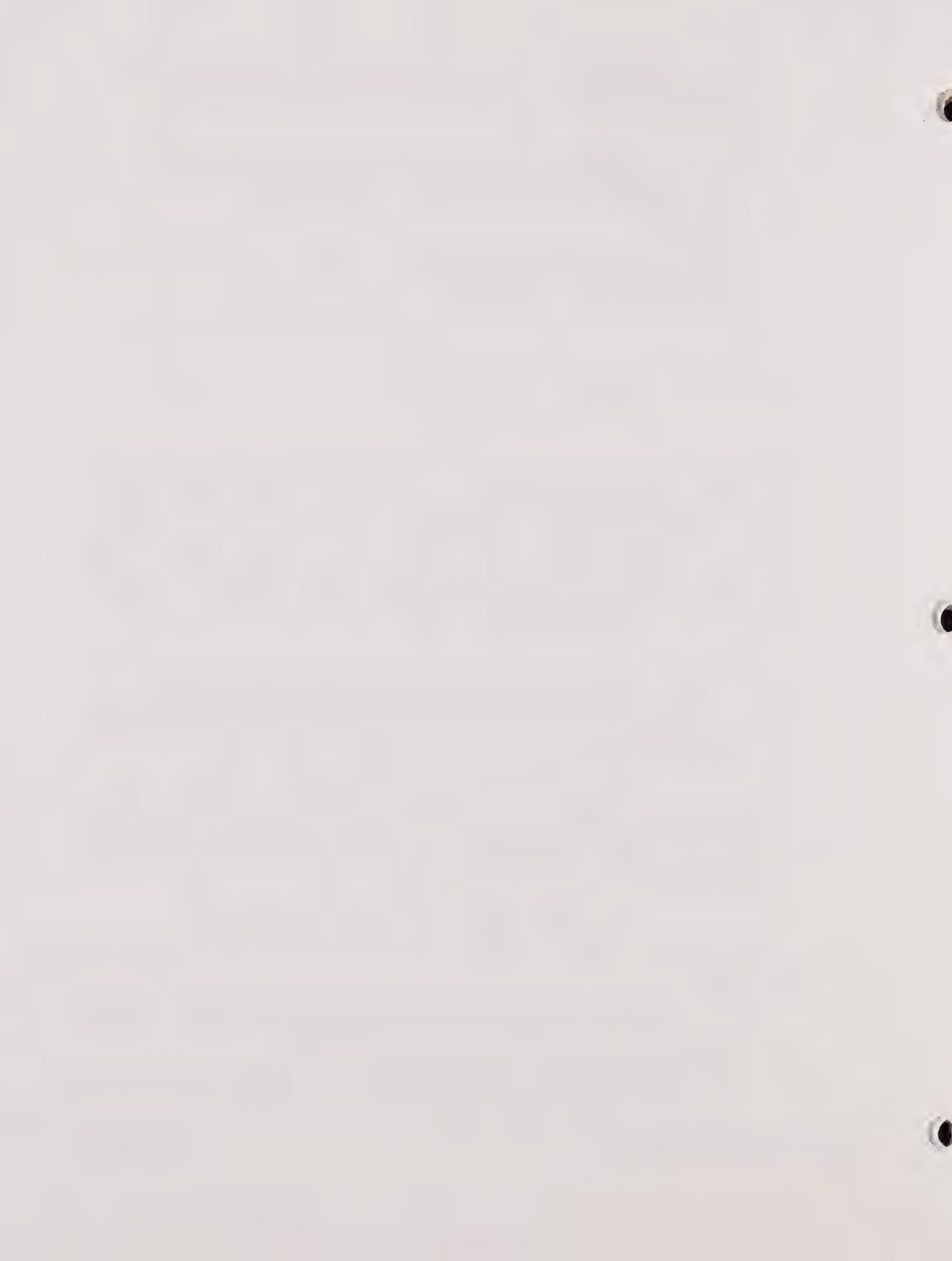
Whenever at-grade crossings of railroad tracks occur there is always the potential for accidents to occur. Normally, this accident potential is reduced to insignificant levels through the provision of flashing lights, warning bells, and crossing gates. These safety devices are mandated and approved by the California Public Utilities Commission (PUC). The PUC will have to approve any new at-grade crossings of the LRT track.

Given the potential safety and feasibility issues of at-grade pedestrian crossings on the site, the general ballpark concept provides for a pedestrian undercrossing from the overflow parking lots on the south side of Tasman Drive to the stadium facility on the north side. If a pedestrian underpass is constructed, the potential for pedestrian hazards would be significantly reduced.

Recommended Mitigation

In addition to the construction of a pedestrian undercrossing, other safety measures should be considered.

- Install secure fencing and landscaping along the LRT tracks and post signs to discourage pedestrians from at-grade crossings of the track.
- Install a pedestrian landing platform for patrons using the LRT that is designed in a manner such that it automatically directs patrons into the undercrossing.



I. PUBLIC SERVICES

1. Gas and Electricity

Overhead power lines extend along the eastern border of the ballpark study area, near the western bank of Coyote Creek. In addition, two gas lines are present on the site. One 10 to 12 inch gas line extends along the eastern portion of the site and connects to the existing Cogeneration Plant in the study area, but to the southeast of the stadium overflow parking lot location. The second 24-inch high pressure gas line consists of a 24-inch high pressure gas line located within a 15 foot easement across the northern third of the site.

The City of San Jose *Development Guidelines for Land in Proximity to High Pressure Natural Gas Pipelines* require that "high-density occupancy load" buildings¹⁴ of more than two stories be set back at least 250 feet from the edge of the pipeline right-of-way. As a result, construction of the ballpark would require the relocation of at least the 24 inch high pressure gas line to a new location a minimum of 250 feet away from the structure. The relocation of this line may also warrant the relocation of the portion of the line on the east side of Coyote Creek. It is also possible that the 10 to 12 inch gas line may require relocation, further to the east, depending upon the location of the stadium structure. Relocation of the overhead electrical lines may also occur. It is anticipated that the lines can be relocated with little or no interruption in service.

Demand for Electricity

It is not known at this time exactly what the maximum demand for electricity will be at the stadium site. Peak demand would occur during an evening ballgame when stadium and parking lot lighting is turned on. Electricity would be necessary to provide air conditioning and heating for conditioned spaces, and indoor and outdoor lighting. It is projected that the total connected power to the stadium site will be approximately 8,100 kw. The maximum power demand for the proposed ballpark is estimated to be 5,400 kw (Bechtel, 1991).

A potential source of electric power for the ballpark *may* be attained from the cogeneration site located adjacent to the study area. However, further analysis is necessary to verify the feasibility of this source for ballpark purposes. If this system, is not available for ballpark use, then the extension of an adequate electrical network will be necessary to serve the site.

2. Sanitary Sewer

San Jose/Santa Clara Water Pollution Control Plant

Sewage treatment is provided by the San Jose/Santa Clara Water Pollution Control Plant (WPCP), located approximately 1.5 miles to the northwest of the study area. The existing capacity of the WPCP is 167 million gallons per day (mgd). The San Jose/Santa Clara Waste Water Plant serves as a primary, secondary, and tertiary treatment of waste water. No increases in WPCP capacity are anticipated for the next 10-15 years. The WPCP

¹⁴ High-density occupancy load buildings include restaurants, drinking establishments, conference facilities, stadiums, auditoriums, hospitals, and nurseries for children.



currently processes 100-105 mgd, which is the estimated current generation of wastewater in the City. Due to the present drought conditions, this generation is lower than under normal water flow conditions (McIntosh, 1991).

Wastewater Generation

Currently, the land uses in the study area generate little wastewater. Therefore, the construction of the baseball stadium will generate a significant increase in wastewater. Information from the Oakland Coliseum indicates that approximately 70 percent of the 4.5 million cubic feet of water used at the Coliseum annually becomes wastewater (Morris, 1991). This amount is equivalent to approximately 3.15 million cubic feet of wastewater per season or approximately 38,414 cubic feet of wastewater per evening baseball game. By comparison, Bechtel estimates that the proposed baseball stadium would generate approximately 21,000 gallons per hour of wastewater (approximately 14,038 cubic feet per game, assuming that each game is five hours long).¹⁵

Sanitary Sewer Infrastructure

Four major sewer interceptors of reinforced concrete extend along Zanker Road in the study area and connect to the Water Pollution Control Plant to the north. These sewer interceptors range from 60 to 84 inches in diameter. Three of these four lines are complete, while the fourth line is presently under construction. The completion of the fourth major interceptor, and rehabilitation of the other interceptors, are planned in the study area.

Presently a wastewater pipeline terminates on the west side of the Cogeneration Plant along Center Road.

Development of the ballpark would require construction of a small access structure to prevent any sewer gases in the interceptors from leaking into the on-site system. This system would be necessary to accommodate the unusual connection of a 10" or 12" line into an 84" line (McIntosh, 1991). However, it is anticipated that the existing infrastructure, with the construction of the small access structure, would accommodate the wastewater generated by the ballpark.

3. Water Service

Infrastructure

The San Francisco Water Department maintains the Hetch-Hetchy aqueduct which traverses the southern half of the proposed stadium site in a southwest-northeast direction. The underground aqueduct is located within an 80 foot wide right-of-way. This aqueduct right-of-way is owned by the City and County of San Francisco, and is administered by the San Francisco Water Department (Bechtel).

A well is located adjacent to the western bank of Coyote Creek near the mid-portion of the eastern boundary of the study area. A second water well is located in the southeastern corner of the study area, on the eastern side of the Cogeneration Plant. A water line

¹⁵ Bechtel Civil, Inc., Phase I Analysis, September 13, 1991.



extends from this well to the Cogeneration Plant. In addition, a monitoring well is located to the east of the well, adjacent to the Coyote Creek right-of-way.

Water Use

Water usage at the proposed ballpark facility would include irrigating the natural playing field and landscaping. Water would also be used in restroom and vendor facilities, as well as in staff offices, locker rooms and for general janitorial procedures. Exact water demand is difficult to determine. However, data available from Candlestick Park in San Francisco indicate that approximately 360,000 cubic feet of water are used per month (about 2.69 million gallons per month) during the baseball season. The Oakland Coliseum utilizes 4.5 million gallons of water per month during the baseball season. Of this amount 12,000 to 15,000 gallons of water are used each day for landscaping (Morris, 1991). Approximately 130,000 gallons of water are used each day for the remaining uses, some of which include: restroom, vendor, staff, and locker facilities.

To put this stadium-related water demand in context, the proposed ballpark facility would use less than one-half the amount of water which would be used if the site were to be developed with two-story office buildings (assuming a standard floor-area-ratio of 35%). Stadium water usage would be roughly 30% of that to be used if the site were developed with high density residential uses. Stadium water usage would be less than 5% of that to be used if the site were developed with electronics manufacturing uses.

The estimated water demand and allocations of water for a 45,000 seat major league ballpark is provided in Table 2.

TABLE 2

<u>Type of Use</u>	<u>Amount of Water</u> (gallons per minute)
Fire Prevention Water	1,500
Domestic Water	1,000
Landscape Irrigation (Including playfield)	200
Sanitary Drainage	2,100 gallons per hour

The existing water system infrastructure in the project area is new and in good condition. Currently, the City of San Jose is planning improvements to the existing infrastructure. Additional water mains will be added along Route 237 to connect Alviso with North San Jose. In the future, additional water tanks will also be constructed (Mansour, 1991). The existing facilities in the project area are adequate to serve the domestic water use associated with the project. It is anticipated that upgrading the existing facilities will not be necessary for domestic purposes. However, development of the ballpark will require a connection to the existing water mains. It is presently unknown, whether additional mains may be required for fire flow capacity (Mansour, 1991).



Water Conservation Measures

Measures to be explored to reduce the amount of water to be used at the proposed ballpark include:

- The use of reclaimed water for irrigation of landscaping and the playing field.
- The use of drought resistant plants for landscaping purposes.
- Consider maintaining the existing agricultural wells for stadium irrigation purposes.
- Require that state-of-the-art, low-flow plumbing fixtures (including toilets) be installed in the stadium.
- Place restrictions using water to "hose-down" various surfaces as a means of cleaning the facilities.

4. Solid Waste

Solid Waste services in the project area are provided by Waste Management of Santa Clara County. Waste Management of Santa Clara disposes refuse collected in the project vicinity at Newby Island Landfill located a couple of miles north of the study area. Newby Island Landfill has approximately 50 years of remaining capacity. The City has a 30 year agreement with this landfill that will expire in 2016 (Stubbee, 1991).

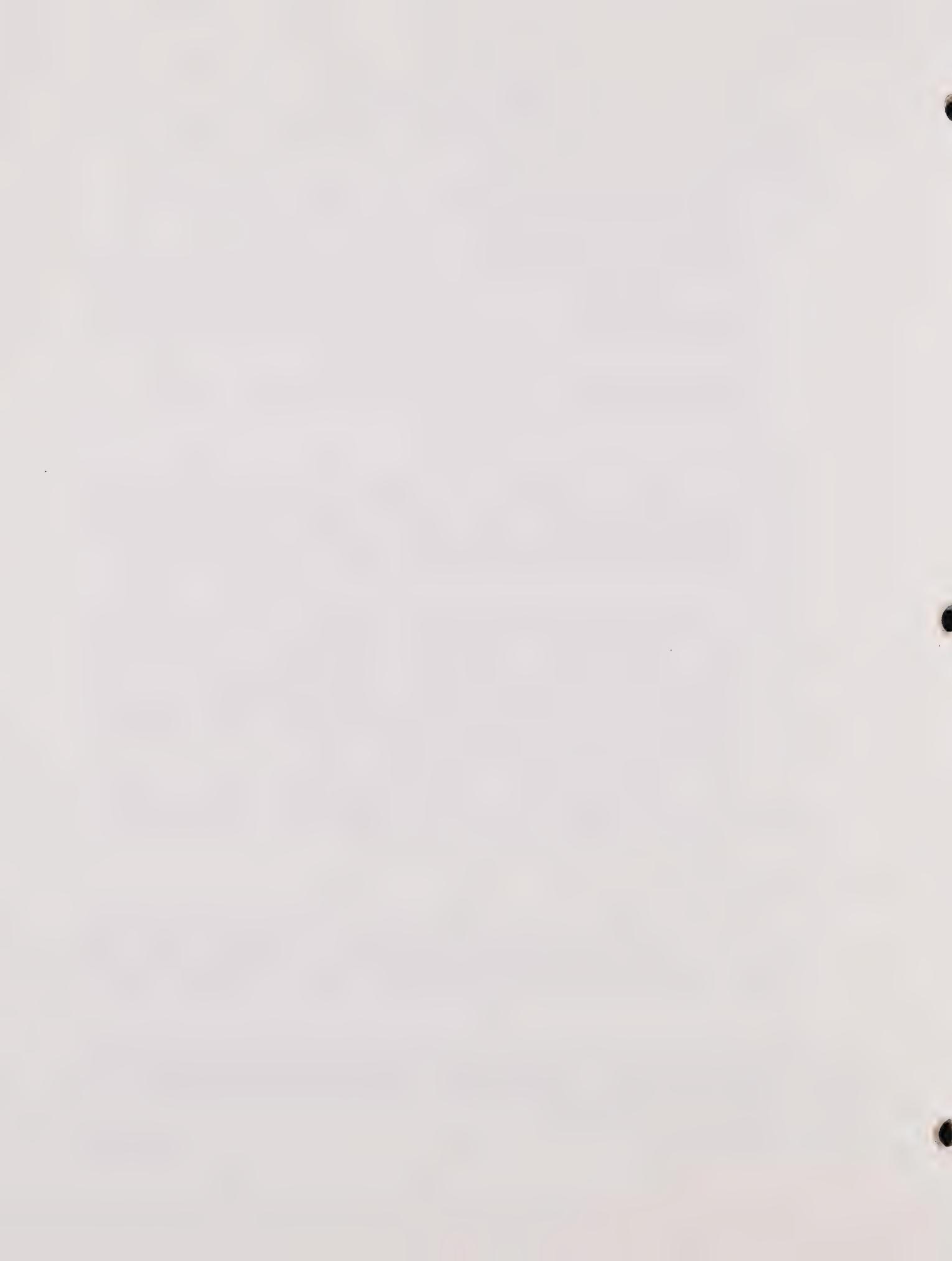
The amount of solid waste generated by the proposed San Jose Ball Park is difficult to determine, but statistics from the Oakland Coliseum indicate that during a full capacity baseball game, (all seats occupied), 160 cubic yards of un-compacted refuse is generated. This amount would fill two 30 cubic yard dumpsters and one compacted container holding about 100 yards of solid waste (Morris, 1991). This would account for 13,120 cubic yards of un-compacted refuse per season. The amount of solid waste will be significantly reduced during the next season through conformance with AB 939 and the implementation of Source Reduction and Recycling Element (SRRE) provisions.¹⁶

It is anticipated that a similar level of solid waste generation would occur at the proposed ballpark. However, San Jose implements an active SRRE program, which could assist in reducing the amount of solid waste generated at the ballpark.

5. Police Protection

The study area and the surrounding land uses are currently served by the City of San Jose's Police Department. Officers patrolling the area are dispatched from police headquarters located at 201 West Mission Street. The San Jose Police Department cooperates in a mutual assistance program with the Santa Clara County Sheriff's

¹⁶ Assembly Bill 939 requires municipalities to divert 25 percent of their solid waste from landfill disposal through SRRE by January 1, 1995, and 50 percent of the waste stream by the year 2000. If the Oakland Coliseum successfully attains a 25 percent reduction in solid waste, approximately 9,840 yards of un-compacted refuse per season would be landfilled.



Department, the Cities of Milpitas and Santa Clara and the California Highway Patrol (Brewer 1991).

It is anticipated that the operator of the baseball stadium would provide security within the ballpark complex, as is commonly provided at other similar facilities. However, the ballpark would still result in an increase in demand for services and extra police personnel to provide adequate police protection outside of the ballpark facility. Based upon a review of the demand for police services associated with the 1987 arena proposal at this location, as well as for the previously proposed Santa Clara ballpark, it is estimated that the San Jose Police Department would need a minimum of two or three additional fulltime officers to meet the demands of the ballpark. Additional officers would also be necessary for anticipated concerts or other off-season events.

Based upon the preliminary information available to date, the following measures are recommended to provide adequate police protection:

- Provide on-site security facilities, including a command post and temporary detention rooms, within the ballpark facility.
- Provide additional "911" lines as necessary.
- Establish a Joint Powers Police Force to provide police officers and sheriffs from surrounding jurisdictions, including Sunnyvale, Campbell, Santa Clara, and other local forces. Mutual Aid assistance could also be provided to serve the stadium.

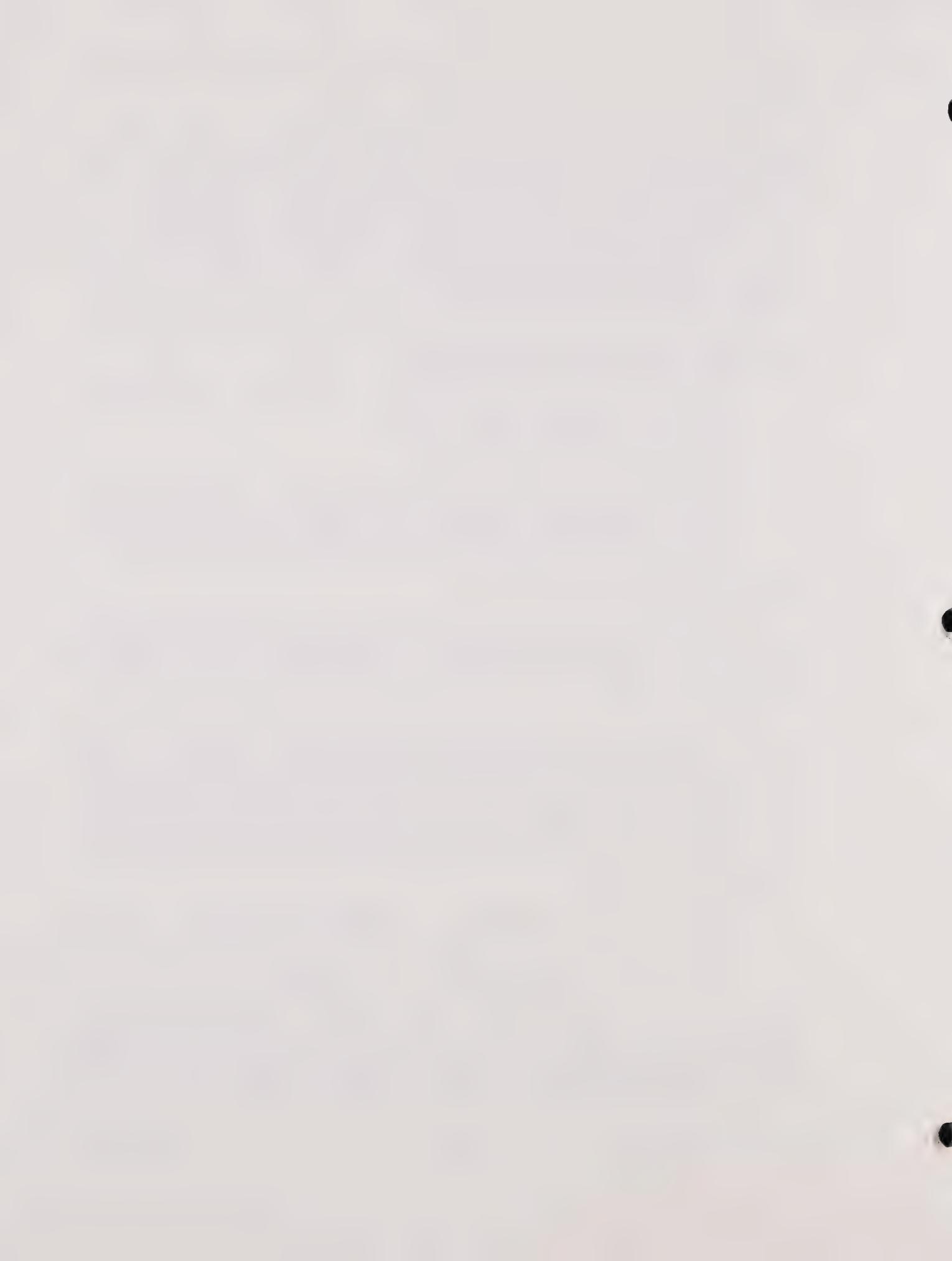
6. Fire Protection

The City of San Jose Fire Department currently provides adequate fire protection to the study area. Fire alarm activity is presently low in the study area. The Fire Department estimates that the construction of a stadium at the proposed location would generate 150 additional alarms per year.

Station No. 25 would be the "first response unit" to respond to the study area in the event of a fire. Station No. 25 is an engine company with two pumbers. Station No. 5 would be the "second response unit" to respond to the study area in the event of a fire. Station No. 5 contains an engine company with five fire fighters on duty and a truck company with five additional fire fighters on duty. Station No. 5 would provide a Battalion Chief if one was needed in the project area. The fire stations responding to emergency calls within the project area are provided below, along with their exact locations, and approximate response times.

<u>STATION NO.</u>	<u>LOCATION</u>	<u>RESPONSE TIMES</u>
25	1590 Gold Street	5 Minutes
5	1380 N. 10th St.	8.5 Minutes

These times are not within the response times established by the City of San Jose. According to the City standards, the first response time should not exceed four minutes, and the second response time should not exceed six minutes. These times are insufficient by one minute and by two and one-half minutes, respectively (Fujczak, 1991).



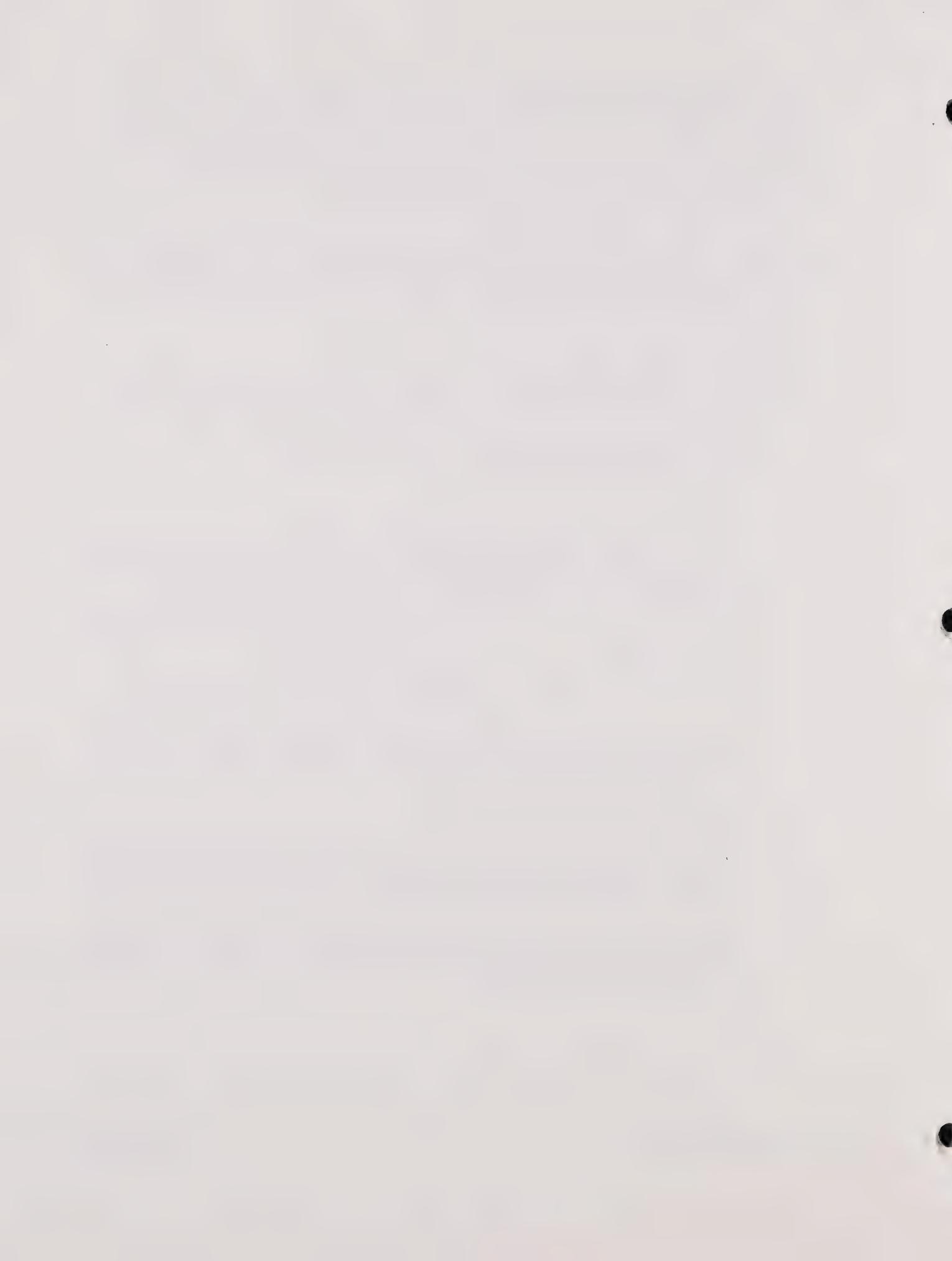
The Fire Department is in the process of constructing a new fire station, that is scheduled to be completed in July 1992. This station is going to be located on the corner of Zanker Road and Caviglia at 199 Caviglia. This new station would drastically improve the response times for the project area. Upon completion of the stadium, this station (Station No. 29) would be the first to respond in the event of a fire in the study area, with a 3.5 minute response time. This would allow the first response and the second response times to meet the City's level of service standards (Fujczak, 1991).

The City of San Jose participates in a mutual aid program with the Cities of Milpitas and Santa Clara. Through this program, should the City of San Jose Fire Department need assistance in addition to its own units, one or both of the mutual aid cities would provide assistance to the City of San Jose in whatever capacity was needed (Fujczak, 1991).

7. Summary of Potential Mitigation Measures

The following list contains a summary of the potential methods of mitigating impacts to the provision of services and utilities to serve the ballpark use and study area.

- Relocate the 24 inch high pressure gas line to a distance of 250 feet away from the edge of the ballpark structure.
- Relocate overhead electrical lines on the site.
- Construct a small access structure to prevent any sewer gases in the interceptors from leaking into the on-site system. This system would be necessary to accommodate the unusual connection of a 10" or 12" line into an 84" line.
- Extend a connection from the study area to the existing water mains to provide water to the site.
- Implement the water conservation measures described above in Section H., 3.
- Provide on-site security facilities, including a command post and temporary detention rooms, within the ballpark facility. These facilities should be designed and incorporated into the ballpark complex.
- Provide additional "911" lines as necessary.
- Establish a Joint Powers Police Force to provide police officers and sheriffs from surrounding jurisdictions, including Sunnyvale, Campbell, Santa Clara, and other local forces. Mutual Aid assistance could also be provided to serve the stadium.
- Extend additional water mains and hydrants to provide adequate fire flow supply to the stadium, since the present hydrants on the site may not provide the stadium with sufficient fire flow capabilities.



J. HYDROLOGY

1. Existing Setting

100-Year Floodplain

Coyote Creek extends along the eastern border of the study area. The creek lies east of the proposed location of the stadium and is not anticipated to be physically altered by the project. The entire study area is situated within the 100-Year Floodplain of Coyote Creek as defined by the National Insurance Flood Maps (see Figure 8). The study area is designated Zone A which is defined as an area within the 100-year floodplain. Base flood elevations and flood hazard factors are not determined.

The Coyote Creek Flood Control Project is planned to protect areas of lower Coyote Creek between Montague Expressway and San Francisco Bay which have experienced severe flooding problems in recent years. As described in the November, 1987 Interim Feasibility Report/Final Environmental Impact Statement, Coyote Creek and Berryessa Creek, improvements to the creek would involve construction of 24-foot tall levees setback from the existing stream channel. In addition, an earthen overflow channel will be excavated within the creek right-of-way. The reach of Coyote Creek adjacent to the study area is currently included in the Santa Clara Valley Water District (SCVWD) and the U.S. Army Corps of Engineers flood control project. The study area lies west of the areas designated in the Coyote Creek Flood Control Project as Reach 3 and Mitigation Areas 3 and 4.

Upon completion of the Coyote Creek Flood Control Project, the study area will no longer be located within the 100-Year Floodplain as depicted in Figure 9.

The study area is also characterized by a high groundwater table, with a depth to groundwater of approximately 12 feet.

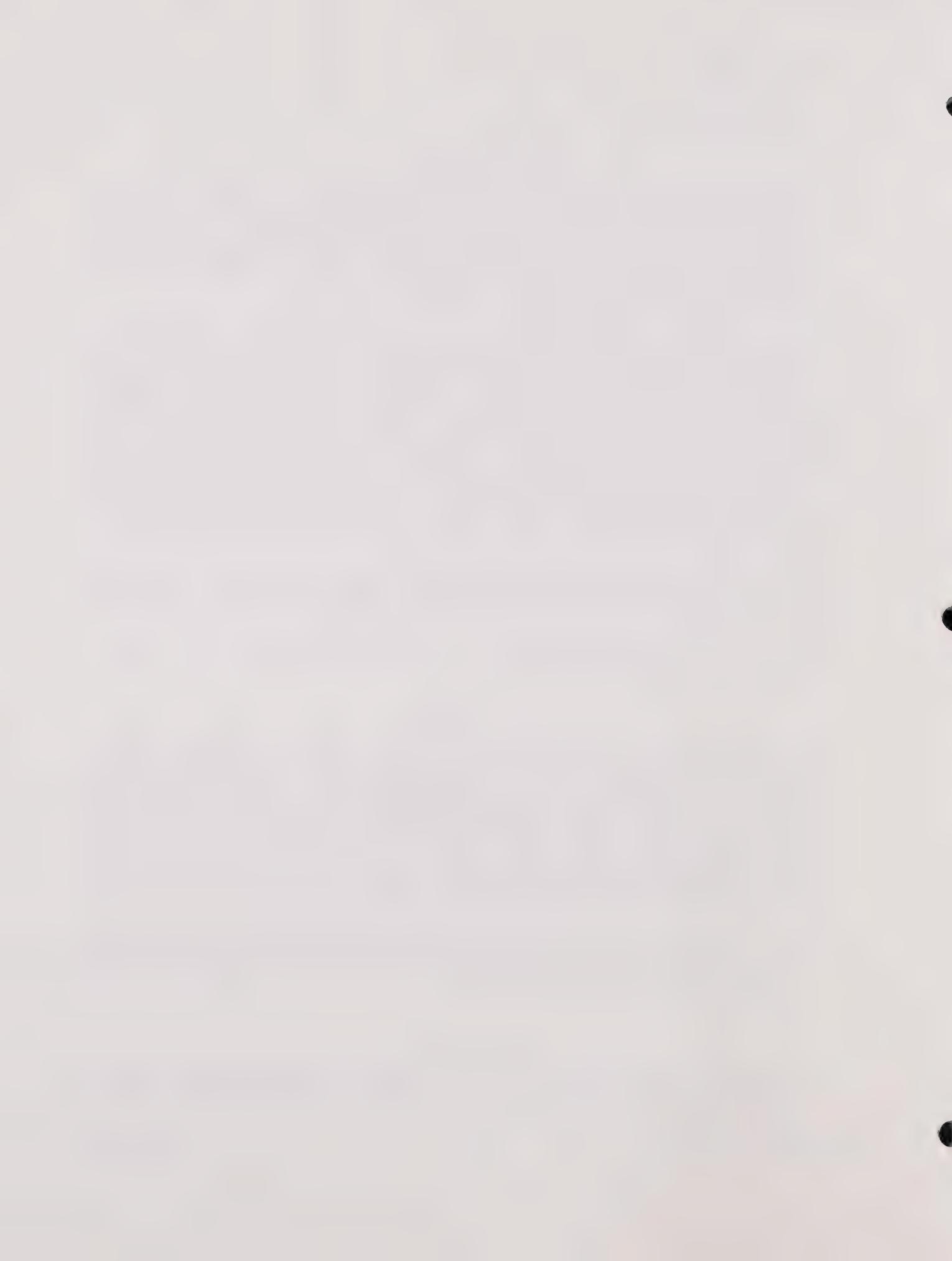
Storm Drainage

Under existing conditions, approximately 60 acres in the northern portion of the study area are covered with impervious surfaces. The remaining 135 acres of the study area consist of pervious surfaces that contain row crops or remain vacant. The study area generally drains to an open channel along Zanker Road and State Route 237, which then discharges to a detention pond at the bus repair facility. The detention pond has a flap-gated outlet to Coyote Creek, upstream of State Route 237. The outlet to Coyote Creek does not release, if the water level of the creek is high. Runoff which exceeds the capacity of the existing drainage system flows across Zanker Road toward North First Street.

The City of San Jose maintains the storm drainage mains in the project area. Five storm mains ranging in size from 12 to 36 inches in diameter extend along Zanker Road (City of San Jose Department of Public Works, 1991). These pipes were constructed within the last 10 years (Lee, 1991).

Water Quality

The State Water Resources Control Board is currently preparing a National Pollutant Discharge Elimination System (NPDES) general permit for stormwater discharge associated

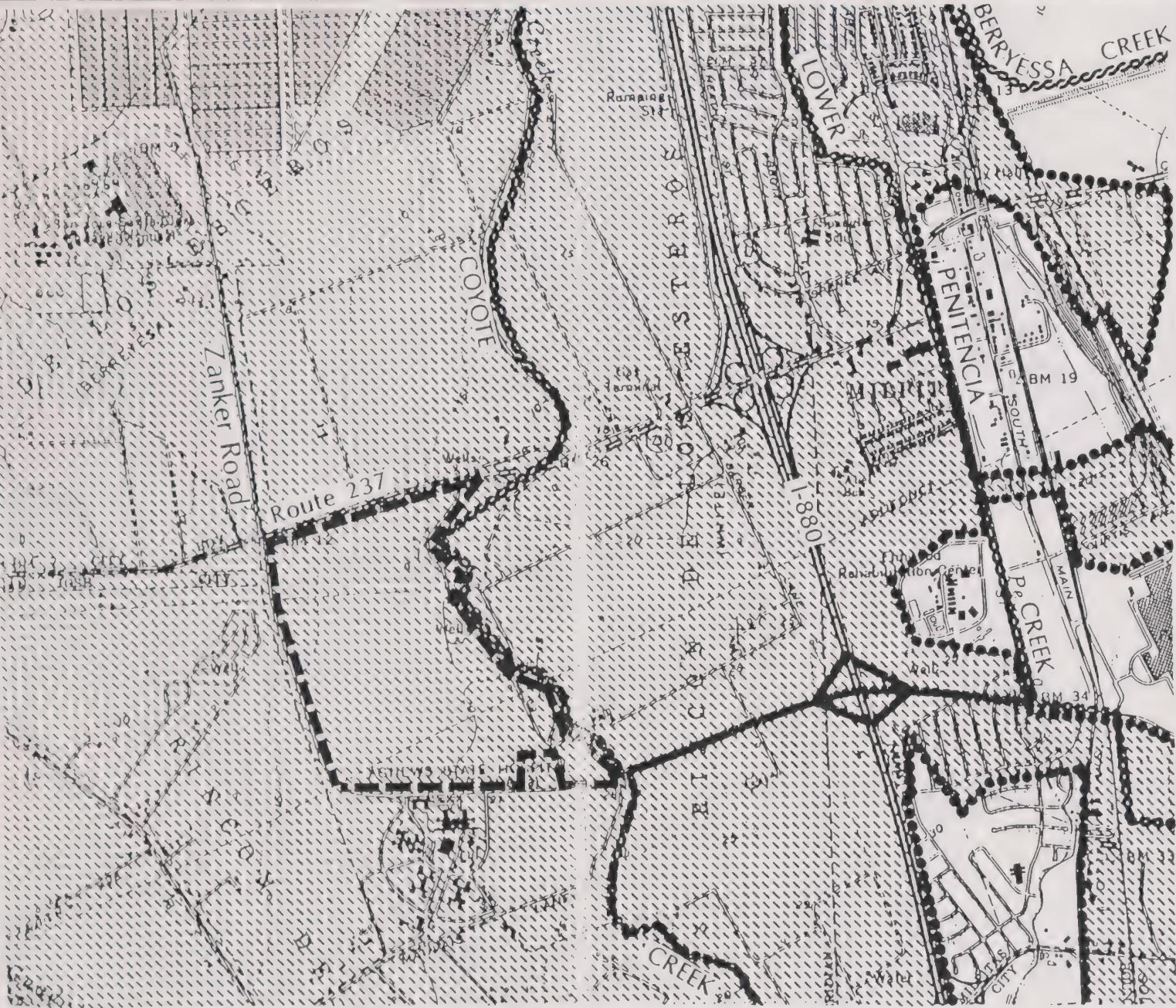


LEGEND

- Floodplain
- Floodplain Boundary
- Future Tasman Drive Extension
- Project Study Area

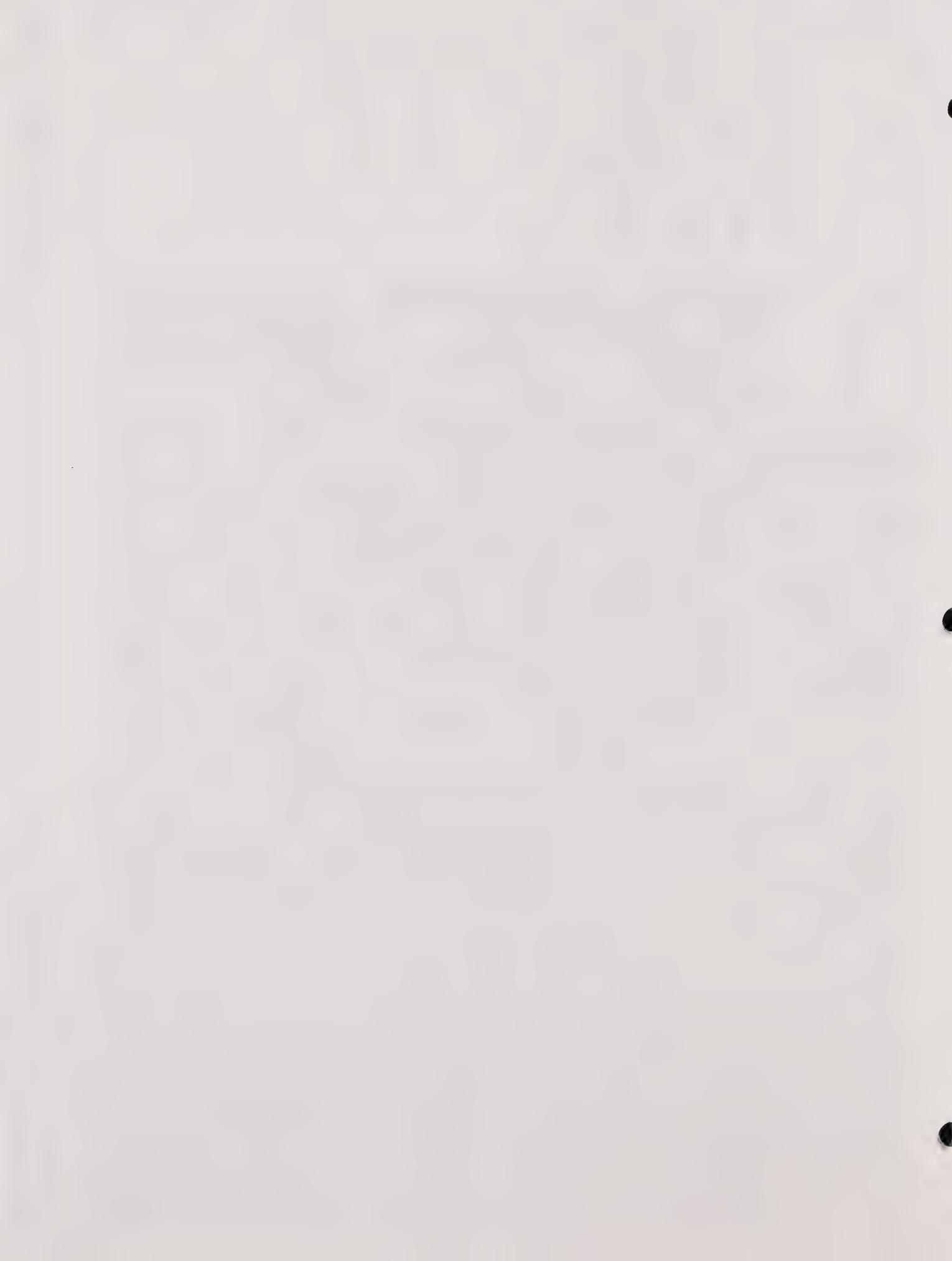
One inch equals 2000 feet

Base Map Source: USGS



EXISTING 100-YEAR FLOODPLAIN

FIGURE 8

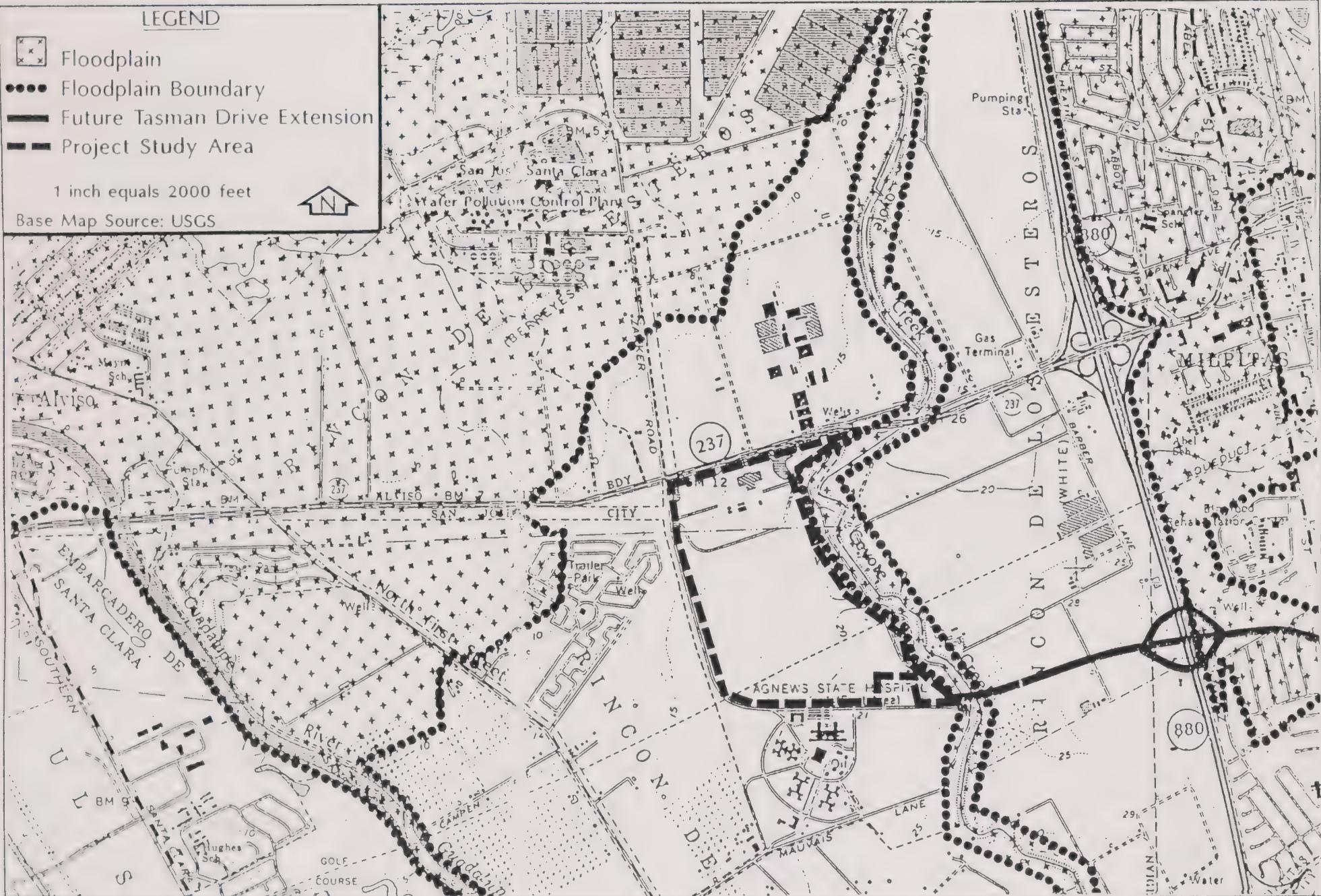


LEGEND

- Floodplain
- Floodplain Boundary
- Future Tasman Drive Extension
- Project Study Area

1 inch equals 2000 feet

Base Map Source: USGS



100-YEAR FLOODPLAIN WITH COYOTE CREEK FLOOD CONTROL PROJECT

FIGURE 9



with construction activity. The ballpark facility will be required to obtain this permit at the time of construction. The permit requires elimination of non-stormwater discharges to stormwater systems, the development and implementation of a stormwater pollution prevention plan, and monitoring of discharge to stormwater systems. Post construction stormwater management consisting of structural and non-structural control measures may also be required.

2. Potential Impacts

Flooding Impacts

Development of the baseball stadium within the study area may affect local flood conditions, if the Coyote Creek Flood Control Project is not completed prior to the construction of the stadium facilities. However, significant flooding impacts are not anticipated to occur with the completion of the Flood Control Project, prior to the construction of the stadium.

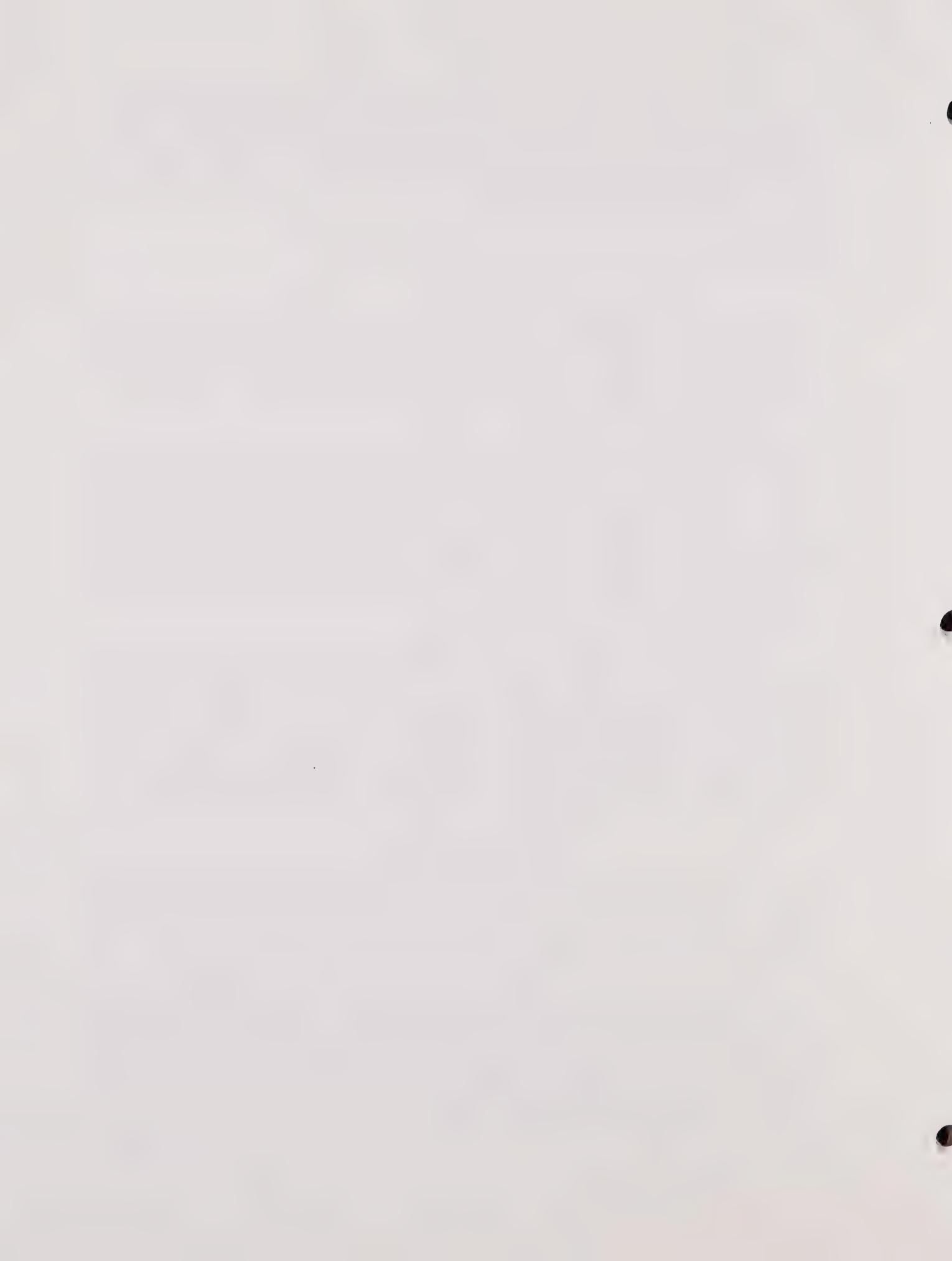
Development of the proposed ballpark structure and parking lots would increase the amount of impervious surfaces on the project site. This increase in impervious surfaces would consequently result in an increase in storm runoff from the site. Portions of the complex would include landscaping, (i.e., the natural grass playing field) which would not result in significant increases in storm runoff. However, an increase in storm runoff from the study area would affect local storm drainage and may affect flow rates, sedimentation and erosion within Coyote Creek, if the Coyote Creek Flood Control Project is not completed. Flood flows could also affect flood conditions in the 100-Year Floodplain areas west of Zanker Road.

The development of the stadium facilities may include the use of the overflow channel for overflow parking during peak stadium events. The Water District has indicated that potential flood control problems could result if cars parked in this area lower the flood capacity of the overflow area, thereby requiring alterations to the current design of the flood control project (Danis, per. comm., 1991). However, the likelihood of this occurrence is remote, since patrons would not be expected to park in the channel during rainstorms. Parking within the overflow channel could result in disturbance to the riparian corridor. Parking in this area would require a permit from the Water District.

Water Quality Impacts

Construction in the study area may temporarily increase erosion and result in sediment depositing into storm drains and into the detention pond located on the bus maintenance facility. Under existing conditions, sediment deposition also occurs as a result of the agricultural activities in the southern portion of the study area.

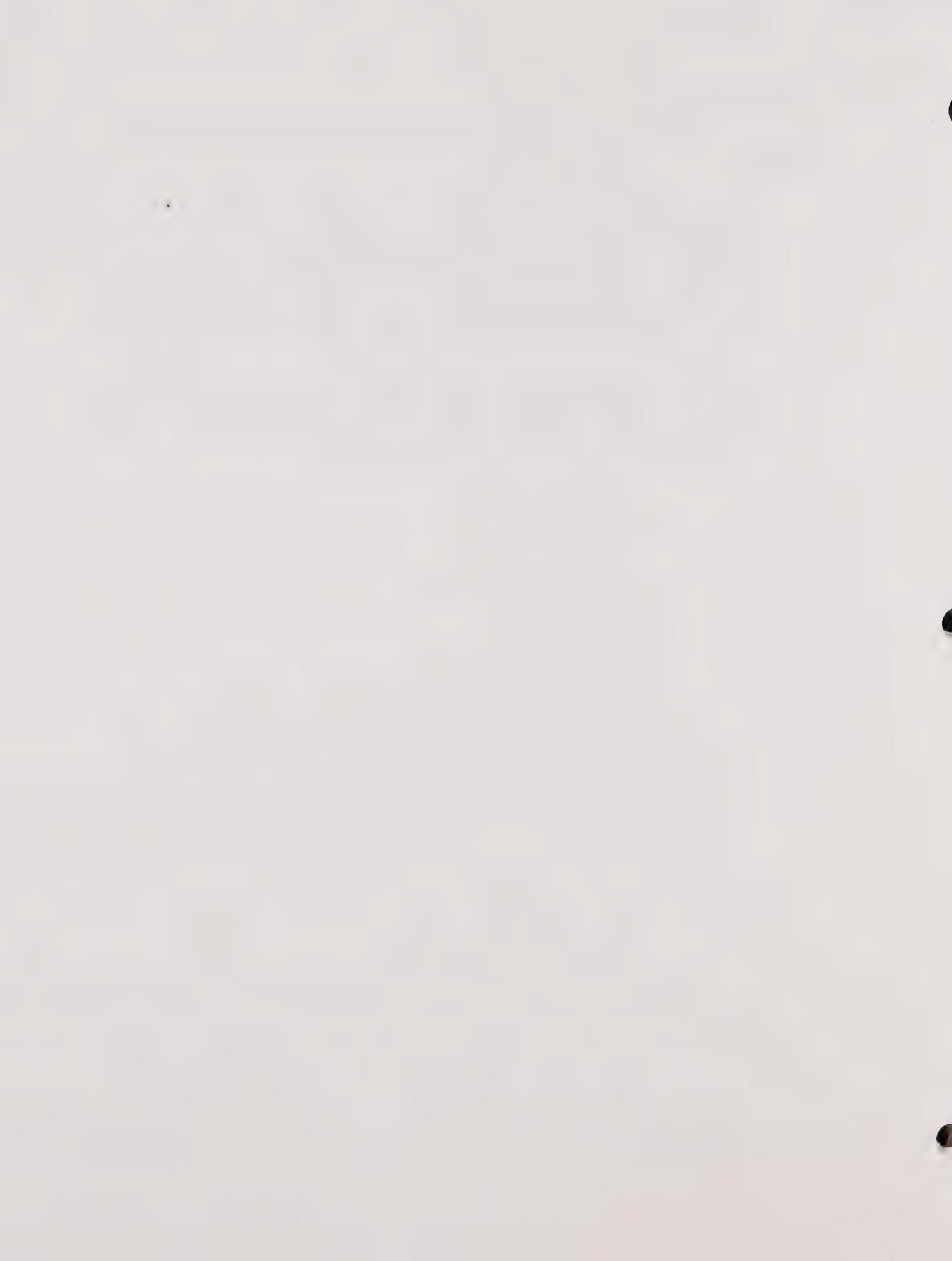
Long-term effects on the water quality of the surface runoff from the study area would occur due to vehicular use of the surface parking lots. In the long-term, petroleum derivatives from parked automobiles and additional asphalt would potentially contaminate storm water runoff. These effects can be reduced by the implementation of NPDES measures, such as, the infiltration of on-site runoff, first flush diversion, flow attenuation, stormwater retention or detention structures, oil/water separators, porous pavement, or a combination of these practices (Mikasa, 1991).



3. Recommended Mitigation

The following measures may be considered at the time a baseball stadium is designed and constructed.

- Coordinate with the Water District and U.S. Army Corps of Engineers to ensure the timely completion of the Coyote Creek Flood Control Project prior to completion of the baseball stadium. If the ballpark is constructed **prior** to the completion of the flood control improvements, interim flood control measures may be required. Possible measures could include raising the elevation of the ballpark structure approximately two and one-half feet above the existing grade. To prevent adverse effects on adjacent floodplain conditions, the surface parking areas, access roadways, and landscaping areas should be at or below existing grade elevations.
- Implement NPDES water quality control measures, such as, the infiltration of on-site runoff, first flush diversion, flow attenuation, stormwater retention or detention structures, oil/water separators, porous pavement, or a combination of these practices to ensure compliance with the NPDES Permit requirements.



K. CULTURAL RESOURCES

The information contained in this section is primarily based upon a cultural resource assessment conducted by Archaeological Resource Management in 1987. The assessment included a literature review, regional clearinghouse records search, an archaeological field reconnaissance and management recommendations for the project. Additional information on cultural resources in the project vicinity is based upon studies contained in the Tasman Drive/I-880 Interchange Draft EIR and EA, June, 1991.

1. Existing Setting

Several prehistoric and historic cultural resources have been recorded in the vicinity of the project area along the banks of Coyote Creek.

Prehistoric Resources

Previous literature reviews indicate that no archaeological sites have been recorded on the 137 acre site¹⁷. Two prehistoric sites, however, have been recorded within the project vicinity. One of these sites was recently discovered during the course of studies conducted for the Tasman Drive/I-880 Interchange EIR/EA in June, 1991. The precise locations of these sites are not made public in order to protect the integrity of the sites. However, these two sites are generally described as follows:

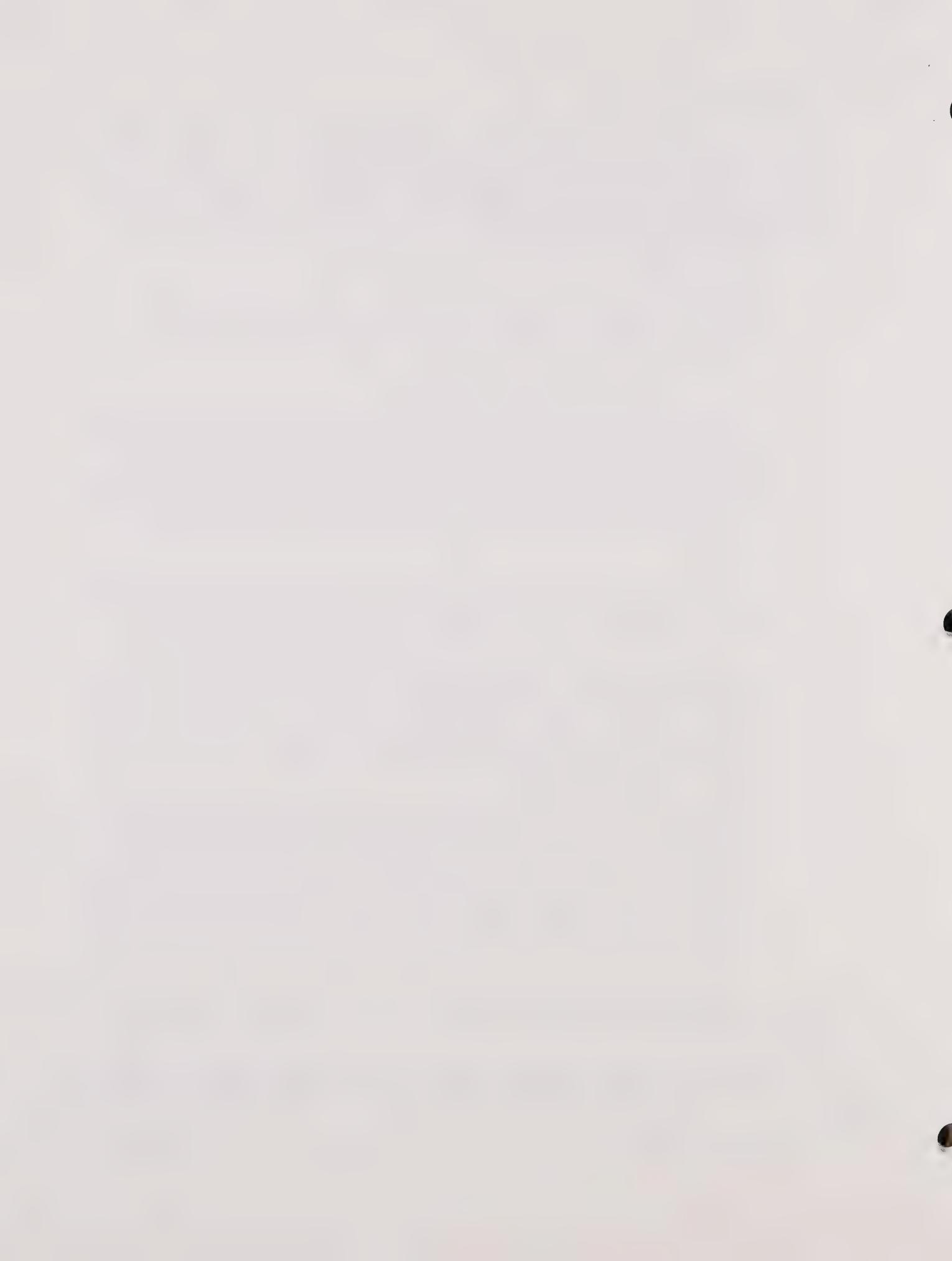
CA-SCI-677 is located in the general vicinity of the SR 237/I-880 interchange. Subsurface testing revealed that this site does not have characteristics which would meet the requirements for it to be eligible for inclusion on the National Register.

CA-SCI-675 is located in the general vicinity of Coyote Creek. This site contains materials which provide evidence of substantial Native American activity. The site appears to be a probable habitation site. According to the State Historic Preservation Office, this site has a high integrity (i.e., little or no previous disturbance) and meets several of the standards for eligibility for inclusion on the National Register of Historic Places¹⁸.

Subsurface mechanical testing conducted at 34 locations surrounding the bus maintenance facility and at additional trenches in areas outside of the maintenance facility indicated the presence of cultural materials in the northeastern portion of the project site. One trench contained evidence of mussel fragments and charcoal flecks at a depth of 60 to 100 centimeters below ground surface. A second trench exposed a hearth or roasting feature of small rocks and flat pebbles, with ash, coal, mussel, and bone fragments. This hearth could indicate the presence of a house

¹⁷ Information contained in the *Archaeological Resources* section of the San Jose Arena Facility Final EIR - Site C, August, 1987, p. 79.

¹⁸ Letter from the State Historical Resources Commission to the Federal Highway Administration regarding the City of Milpitas/Caltrans Interchange on I-880 at Tasman Drive in Milpitas and San Jose, 20 March, 1990.



floor or a thin occupation layer. Scattered flecks of charcoal were also identified at another trench at a depth of 205 to 240 centimeters.

Historic Resources

Archival research and a surface reconnaissance of the project site in 1987 indicated that there are no standing historic resources within the boundaries of the project site. Potentially significant subsurface historic resources may exist that include the foundations and waste and trash deposits associated with various structures that once occupied the site. It is also likely that one of these buildings may have been the residence of Ah John, a long-time Chinese laborer on the farm of William Boots, a late 1800's landowner. Deposits associated with the Chinese culture and Ah John or other seasonal laborers would be considered significant, if located.

A previous review of the historic maps of this area indicate that the subsurface deposits associated with the Boots residence and farming complex are likely located within the vicinity of the existing bus maintenance facility or in the Santa Clara Valley Water District right-of-way along Coyote Creek.

Site CA-SCI-529H was previously recorded as a site along Coyote Creek, dating to the historic period ¹⁹. The site was an extensive deposit of early 20th century artifacts that was subject to significant disturbance. Therefore, the loss of the integrity of this site has compromised its significance, and does not appear eligible for inclusion on the National Register of Historic Places.

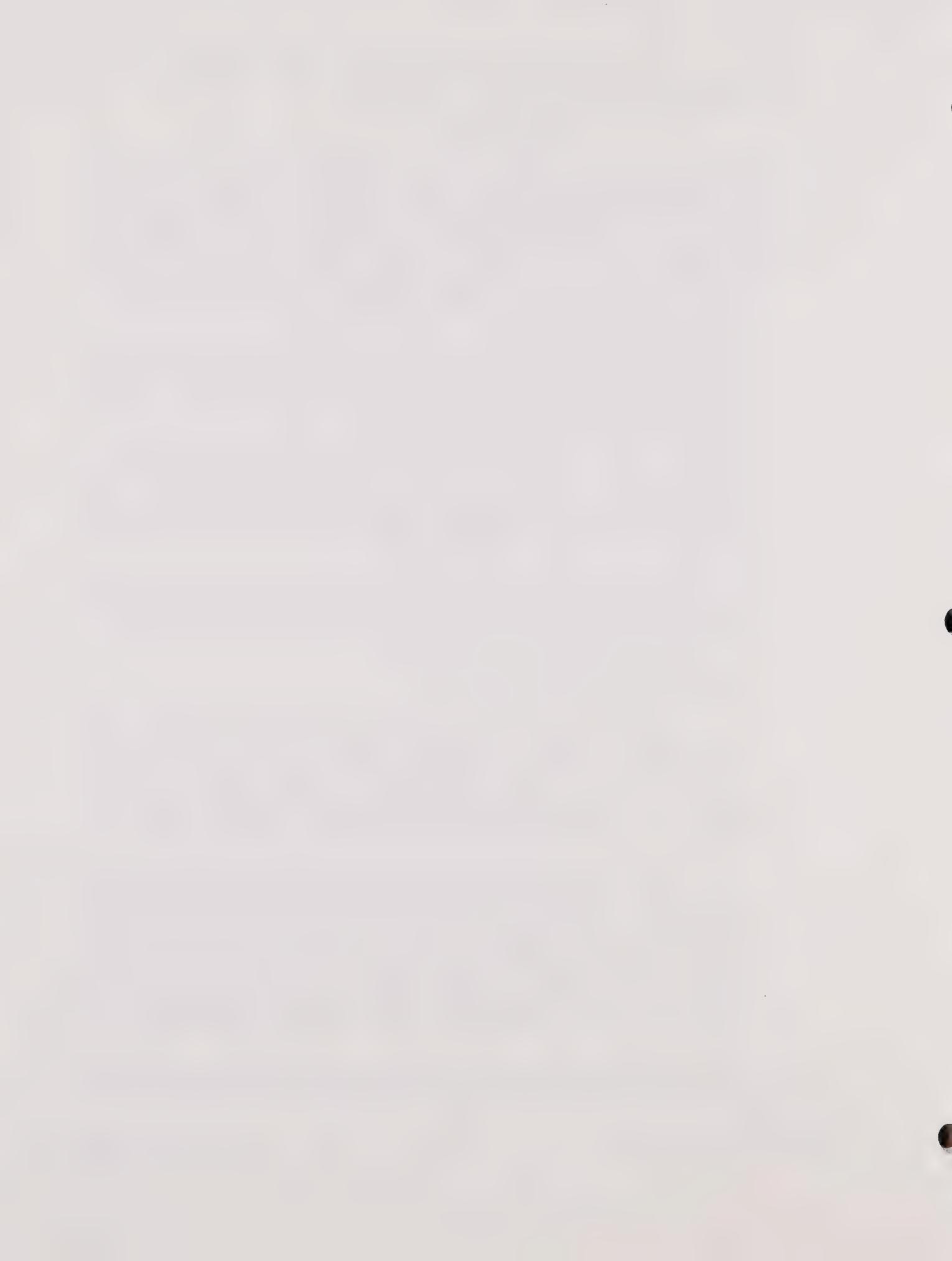
Eleven locations were previously identified along Coyote Creek, where farmsteads were established in the latter half of the 19th century. However, research indicated that most of the farmstead buildings were destroyed. Two farmstead locations that have remained are outside of the project area.

2. Potential Impacts on Cultural Resources

The construction of the proposed ballpark facility may impact prehistoric and historic cultural resources. Impacts to prehistoric resources would most likely occur, if subsurface activities are proposed in the northeastern portion of the study area or in the vicinity of the bus maintenance facility. Impacts to historic resources may occur, if subsurface activities are proposed within the vicinity of the bus maintenance facility or in the Water District right-of-way along Coyote Creek.

It was previously determined that the proposed extension of the four-lane Tasman Drive roadway, across Coyote Creek and into San Jose, will directly impact archaeological site CA-SCI-675. This site will be impacted by the placement of roadway fill over a section of the site, and by the placement of bridge supports into a portion of the recorded site. Avoidance of this site was determined to be impractical, since shifting the roadway alignment to the north or south would require the removal of many existing or soon-to-be-constructed structures and/or the new cogeneration plant at the southeastern corner of the proposed stadium site.

¹⁹ Interim Feasibility Report/Environmental Impact Statement, Coyote Creek and Berryessa Creek November, 1987.



The construction of the Tasman Drive bridge will involve the placement of pile drivers and/or pouring of concrete foundations. Prior to the initiation of bridge construction, the impact areas will be carefully delineated by surveyors. These impact areas will then be excavated by an archaeologist who will remove and record the artifacts in accordance with accepted standards. A detailed data recovery program will be implemented in consultation with the State Historic Preservation Office and the national Advisory Committee on Historic Preservation.

Disturbance of this recorded site is also likely to occur if Tasman Drive is expanded from a four-lane to a six-lane facility and the proposed bridge is widened across Coyote Creek.

3. Recommended Mitigation

- Further cultural resource evaluations should be conducted in the study area during the preparation of the EIR for the stadium. Recommendations of these studies for subsurface testing and/or monitoring should be implemented, if any are warranted.
- The construction of a six-lane Tasman Drive and expanded bridge across Coyote Creek would require consultation with the State Historic Preservation Office to determine if changes to the data recovery and recordation process are warranted.



L. VISUAL IMPACTS

1. Existing Setting

The 195 acre study area is characterized by a low-scale bus maintenance facility, agricultural activities, and vacant land. The topography of the study area is fairly level, with an average elevation ranging from approximately 12 feet above mean sea level in the northwest corner of the area to approximately 25 feet above mean sea level in the southeast corner.

The nature of the study area is similar to the character of surrounding properties. Land uses on the north side of State Route 237, between Zanker Road and Coyote Creek, include agricultural-related uses. Land uses located to the east of Coyote Creek include agricultural activities, a hotel, a research and development campus, and several single family residences, that appear to be related to the agricultural uses. The Agnews Developmental Center is located on the south side of the proposed ballpark site, at Zanker Road and Center Road. Agricultural activities are present on the State property, immediately east of the Developmental Center facility. The Mobile Home Park West complex is located immediately west of the site, on the west side of Zanker Road. Research and Development/office uses are located to the south of the mobile home park.

In general, the surrounding area is characterized by low-scale, low intensity land uses and expanses of agricultural lands. Coyote Creek provides views of extensive riparian vegetation to the east of the study area, and serves as a visual buffer from I-880 to the east of the study area. Landscaping, located along Center Road and Zanker Road, also provides a visual buffer from the surrounding land uses.

2. Potential Visual Impacts

Construction of a ballpark at the study area location would significantly alter the visual character of the area from an under-utilized state, to one of intensive public/quasi-public uses. The land use intensity of the structure would be greater than the adjacent uses in terms of the height and mass of the structure, as well as the extensive coverage of the area by impervious, non-landscaped surfaces.

Although conceptual plans for the 48,000 seat ballpark have not been developed, it is anticipated that the baseball stadium would cover a footprint of approximately 16 acres and would have a height of up to 170 feet (i.e., to the top of the light standards). The structure is anticipated to resemble a traditional ballpark with a grass playing field, and traditional building facade. The surface parking lots are anticipated to have limited landscaping in order to provide for the maximum number of parking spaces.

3. Recommended Mitigation

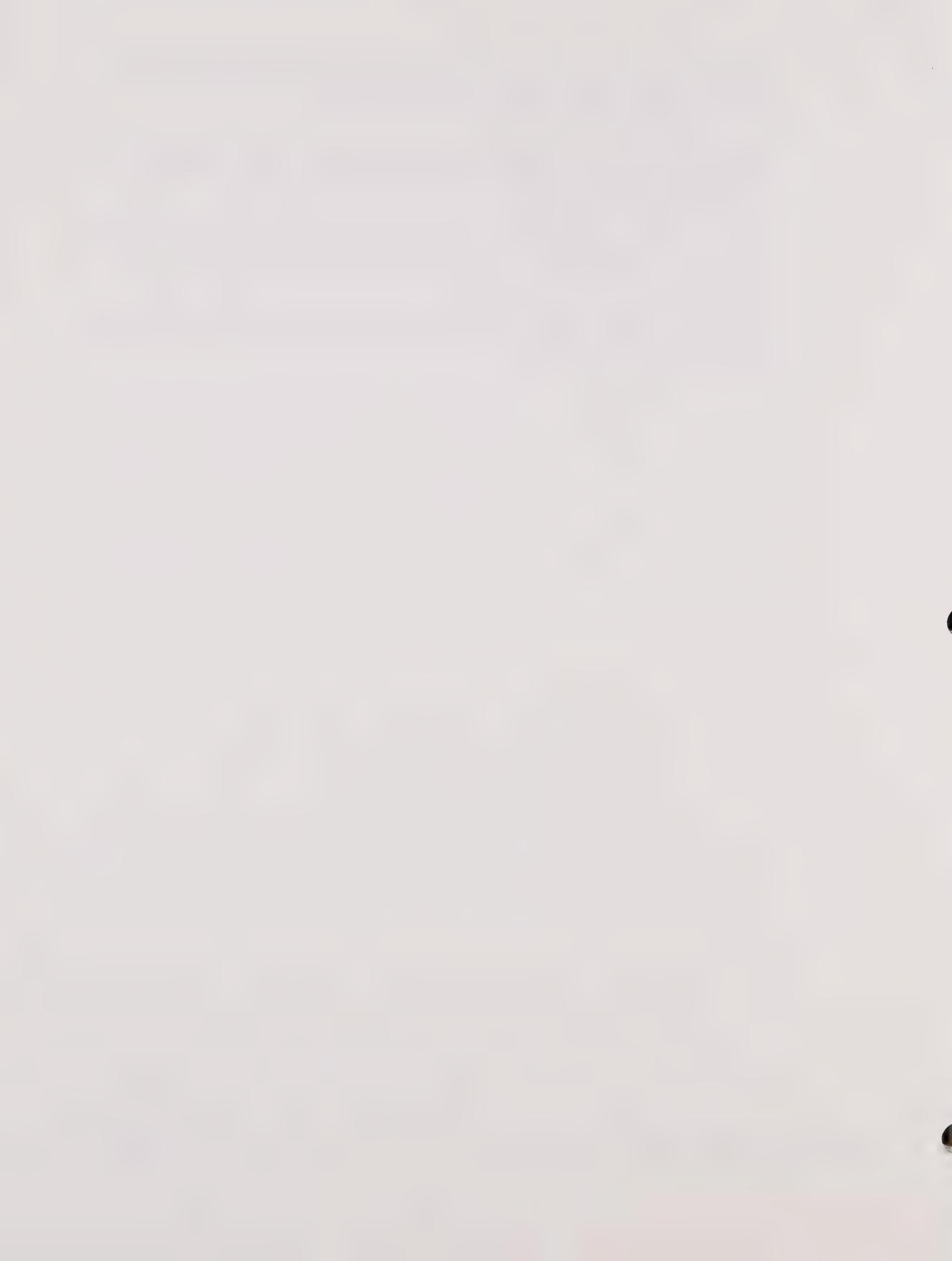
The following measures are recommended for consideration at the time of ballpark design.

- Provide extensive landscaping along the perimeter of the study area to buffer the stadium from the surrounding land uses. This is especially critical along Center Road, where landscaping would discourage parking and neighborhood intrusion into the Agnews facilities, as well as providing a visual buffer. Landscaping should



also be provided along both the east and west sides of Zanker Road to buffer the mobile home park. Some of this landscaping could involve the maintenance of the existing mature trees along the border of the study area.

- Further aesthetic and site evaluation of the site design should be conducted prior to the architectural review process. Landscaping, exterior building cladding, and compatibility with the surrounding land uses should be considered.
- Minimize light and glare intrusion on adjacent properties by using non-glare glass and requiring lighting standards in the parking areas to be focused into the parking lots.
- Conformance to the City of San Jose's General Plan Urban Design Policies and amended High-Rise Policy would provide standards for architectural and site design.



SECTION VII

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